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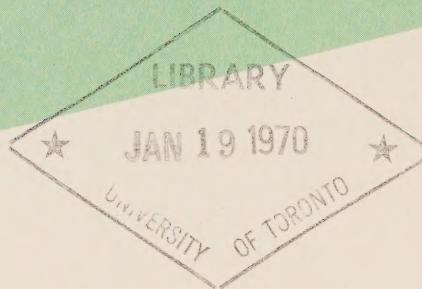
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DEPARTMENT OF ENERGY, MINES AND RESOURCES  
Ottawa



## OCEAN WEATHER STATION 'P' NORTH PACIFIC OCEAN

February 23 to May 23, 1968

No. 10

1969 Data Record Series

Canadian Oceanographic Data Centre

Programmed by the  
Canadian Committee on Oceanography

1969

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1969

# OCEAN WEATHER STATION 'P' NORTH PACIFIC OCEAN

February 23 to May 23, 1968

**CODC References: 02-68-003**

**02-68-004**

**No. 10**

**1969 Data Record Series**

**DEPARTMENT OF ENERGY, MINES AND RESOURCES**  
**Canadian Oceanographic Data Centre**  
**615 Booth St., Ottawa, Canada**

**Programmed by the Canadian Committee on Oceanography**



DEPARTMENT OF ENERGY, MINES AND RESOURCES  
and  
FISHERIES RESEARCH BOARD OF CANADA

Ocean Weather Station "P", North Pacific Ocean

<b>Ships:</b>	CCGS "Vancouver"	CCGS "Quadra"
<b>Local cruise designations:</b>	P-68-1	Patrol No. 3
<b>CODC cruise reference nos:</b>	02-68-003	02-68-004
<b>Cruise periods:</b>	Feb. 23-April 11, 1968	April 5-May 23, 1968
<b>Scientist-in-Charge:</b>	Dr. C.A. Collins	
<b>Observers:</b>	D.A. Healey J. Wong	Ship's crew

MARINE SCIENCES BRANCH  
and  
PACIFIC OCEANOGRAPHIC GROUP  
Nanaimo, B.C.



## SECTION I

Description of data collection procedures



Figure 1.

The Canadian Weathership CCGS "Vancouver"



Photo by  
Canadian Hydrographic Service  
Victoria, B.C.



Photo by  
Canadian Hydrographic Service  
Victoria, B.C.

The Canadian Weathership CCGS "Quadra"

Figure 2.





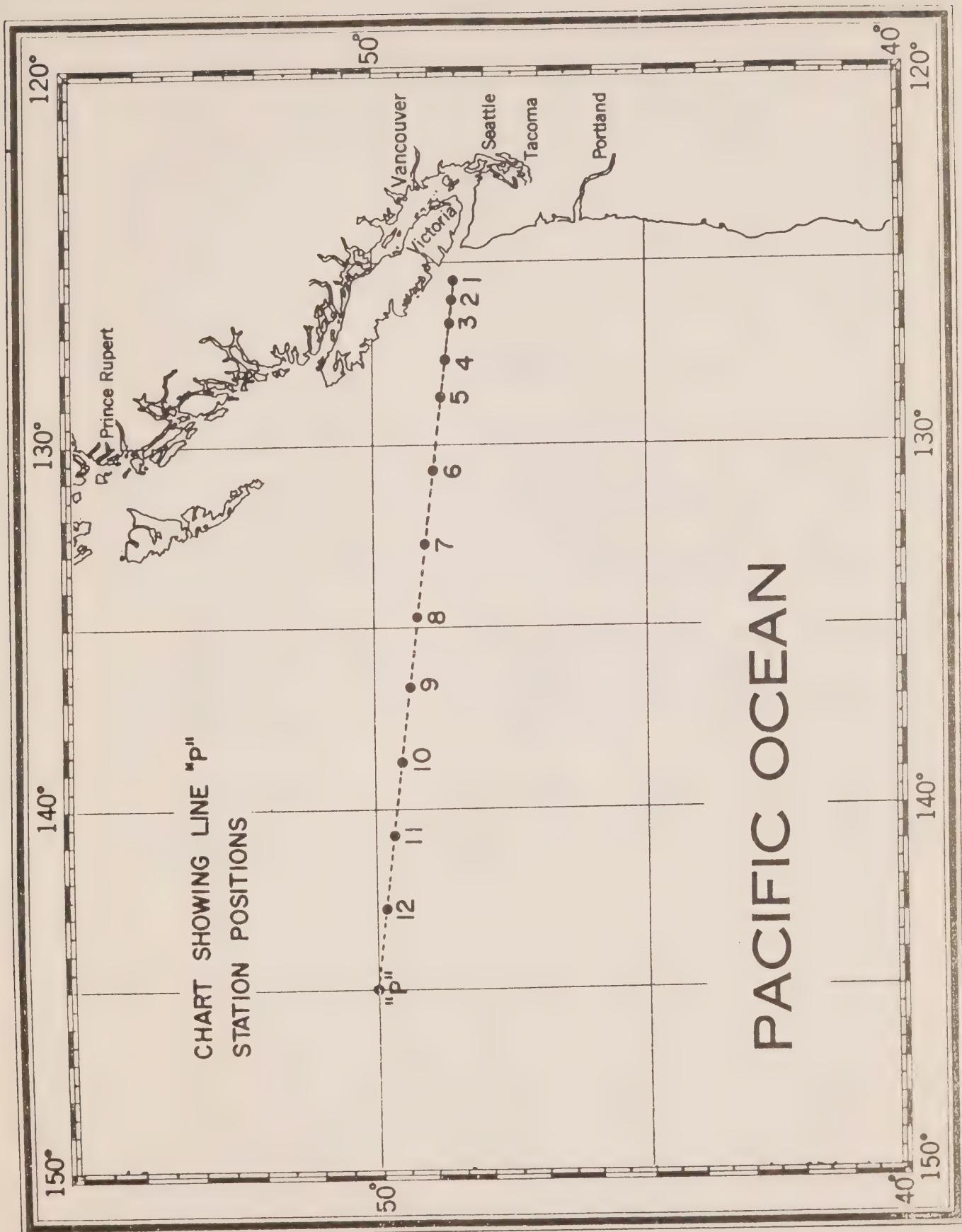


Figure 3.



### INTRODUCTION

Canadian operation of Ocean Weather Station "P" (latitude 50°00'N, longitude 145°00'W) was inaugurated in December 1950. The Station is manned by two vessels operated by the Marine Services Branch of the Department of Transport. They are the CCGS "Vancouver" and the CCGS "Quadra" (Fig. 1 and 2). Each ship remains on Station for a period of 6 weeks, and is then relieved by the alternate ship, thus maintaining a continuous watch. The chief purpose of the Station is to operate as a meteorological station for surface and upper-air observations, and as an air-sea rescue station.

The CCGS "Vancouver" is completely equipped with deck and laboratory facilities required to make bathythermograph and oceanographic observations. Oceanographers from the Pacific Oceanographic Group accompany the ship on each patrol. The CCGS "Quadra" is equipped with bathythermograph equipment only. The BT observations on both ships are made by members of the ship's crew.

Bathythermograph observations have been made at Station "P" since July 1952. A program of oceanographic observations was commenced in August 1956, and it has been increased and altered to suit the requirements for new and additional information.

CRUISE LOG, CCGS "VANCOUVER", SURVEY P-68-1

Feb. 23 Departed from Esquimalt, B.C.; no oceanographic stations were observed en route to Station "P", owing to inclement weather.

Feb. 26 Rendezvous with CCGS "Quadra".

Feb. 27 Regular observations began, including three Nansen bottle casts per week and regular biological observations.

Apr. 8 Relieved by CCGS "Quadra" and proceeded on the return journey; 9 oceanographic stations were observed on Line P. A total of 279 BT observations were made by the ship's crew during the patrol.

Apr. 11 Docked at Esquimalt base.

OBSERVATIONAL PROCEDURES

During survey P-68-1, water samples and temperatures were obtained at depth with Nansen water sample bottles equipped with either Richter and Wiese or Yoshino reversing thermometers. Surface samples (0 m) were obtained in a one-gallon rubber bucket. The surface temperature was measured in this bucket with a thermometer graduated in 0.5 C intervals.

Station locations were determined by the officers of the watch, who also made the meteorological observations reported with the oceanographic data.

LABORATORY PROCEDURES

The salinity determinations of the oceanographic station samples from Survey P-68-1, and of the daily surface samples taken in conjunction with the BT observations from both ships, were made with an inductive salinometer, Model 601 MK III, Auto-Lab Industries. Most of the oceanographic station samples were analysed on board "Vancouver". The salinity data are the means of duplicate determinations, and are considered to have an accuracy at the 35% salinity level of  $\pm 0.003\%$ . (Brown and Hamon, 1961).

The conversions from conductivity ratio to salinity were made from international oceanographic tables, published jointly by the National Institute of Oceanography, Great Britain, and UNESCO.

The dissolved oxygen analyses were done in the shipboard laboratory by a modified Winkler method (Strickland and Parsons, 1965). The data are the means of duplicate determinations.

BATHYTHERMOGRAPH OBSERVATIONS

BT observations to 275 m depth were made from "Vancouver" every 3 hours during the patrol, and also on the return journey to the base. The "Quadra" made no BT observations during the journey to Station "P" but took 284 observations to 275 m every 3 hours while on station and 21 observations on the ingoing trip.

The bathythermograms have been prepared by the Canadian Oceanographic Data Centre in their BT-aperture card format (Sauer, 1964), and copies are available from the Centre. The bathythermograms presented in Section IV of this data record were reproduced from the BT-aperture cards. The consecutive number entered below each bathythermogram refers to an entry in Table 1 (P-68-1) or Table 2 (Patrol No 3) which list the information concerning time/date, position and associated meteorological information.

PERSONNEL

The scientist-in-charge of the Station "P" program was Dr. C.A.Collins. The oceanographers on board "Vancouver" during survey P-68-1 were Mr. D.A. Healey and Mr. J. Wong.



## SECTION II

Description of the machine-generated data record



## INTRODUCTION

This section applies to the machine processing phase of the data reduction and computation.

The oceanographic data previously recorded on CODC data summary forms, a sample of which is shown on the next page, are transferred to punch-cards for subsequent electronic data processing on an IBM 1620 computer, using CODC's OCEANS II program. In addition to computing routine derived quantities, the program carries out unit and format conversions, range checks, plausibility tests, internal editing, and if required, interpolation at standard oceanographic depths. When interpolations are carried out, additional derived values are computed.

After the data have been processed, the data record is prepared using an IBM 1401 computer configuration with the OCEAN REPORT III program, which provides for pre-edited high speed print-out on continuous direct-image masters. These masters subsequently yield the required volume of copies for distribution.

Provision has been made to enter an "estimate of precision" for each observed variable selected for interpolation at standard oceanographic depths. The precision depends on the instrument and/or technique used to determine the variable. A standard precision stated as a **standard deviation** ( $\sigma$ ) can be determined for each instrument or technique under routine field conditions by making duplicate determinations of the variables for a homogeneous sample of sea water. These standard deviations are given for each cruise under "GENERAL INFORMATION" in section III of the data record.

The **measurement error estimate** of a specific observation in this data record, is stated as a multiple of the standard deviation derived as above, and entered in a column immediately to the right of the reported variable. In order to distinguish it from an additional decimal digit, the measurement error estimate is recorded alphabetically, (i.e.,  $1\sigma = A$ ,  $2\sigma = B$ , etc.; in this data record "A" is suppressed).

An option is provided with respect to the measurement of the salinity variable. If observed to three decimal digits, the last digit takes the place of the measurement error estimate.

In the past, a number of methods for both manual and machine interpolation have been developed. Studies and comparisons of the several methods have shown that no single method is universally acceptable. The manual methods are the most elaborate and flexible, but often require subjective decisions. In machine interpolation, all the present methods fail to yield acceptable results under some circumstances. Hence, it is considered necessary to qualify interpolated values by stating an "interpolation error estimate" derived from the particular interpolation formula used. There are two purposes in stating the error estimates; **first**, to give an indication of the quality of the interpolated data; **second**, to allow the oceanographer to redesign his observational procedures in order to reduce interpolation errors in future observations.

The interpolation scheme chosen for the OCEANS II program consists of a combination of two 3-point interpolations using the Lagrangian interpolation polynomial, as recommended by Rattray (1962). A parabola is fitted through three values of a given variable (T, S, O<sub>2</sub>) considered as a function of depth. The two interpolation parabolas require a total of four points (observed depths). The middle points are common to both parabolas. The average of the two values obtained from the parabolas at standard depth is taken as the interpolated value, and a function of their difference as an estimate of the interpolation error.

This function combined with the "measurement error estimate" comprises the "combined measurement and interpolation error estimate". It is expressed as a multiple of the standard deviation of measurement ( $\sigma$ ) under normal routine field conditions by:

# CANADIAN OCEANOGRAPHIC DATA CENTRE

$$\frac{\sigma_i}{\sigma} = \left\{ \left( \frac{\Delta V_i}{\sigma} \right)^2 + \sum_{n=j-2}^{j+1} (\gamma_n)^2 \left( \frac{\sigma_n}{\sigma} \right)^2 \right\}^{1/2} \quad , \text{ where}$$

$\sigma$  = Standard deviation of the combined error estimates at standard oceanographic depth,

$\Delta V_i$  = the interpolation error estimate of variable "V" at standard oceanographic depth =  $\frac{1}{2} \cdot (V_{i+1} - V_{i-1})$

$\gamma$  = Interpolation polynomial coefficient.

$Z_j$  = Observed depth.

$Z_i$  = Standard oceanographic depth, such that:  $Z_{j-2} < Z_{j-1} < Z_i < Z_j < Z_{j+1}$

The integral part of the fraction  $\frac{\sigma_i}{\sigma}$ , if  $\frac{\sigma_i}{\sigma} > 2$ , is reported in this Data Record following the interpolated variable. It represents the **combined measurement and interpolation error estimate**. In order to distinguish it from an additional decimal digit, it is recorded alphabetically (e.g.: 2 as "B", 3 as "C", etc.).

With respect to the interpolated value of the salinity variable if reported to three decimal digits, the **interpolation error estimate** is given only when  $\frac{\sigma_i}{\sigma} > 2$  (the salinity is then recorded to two decimal places). If less than 2, the mean obtained from the two interpolation parabolas is reported to three decimal places.

## EXPLANATION OF DATA RECORD HEADINGS

## MASTER HEADINGS

(1) C-REF-NO	(6) YR	(11) DEPTH	(16) WAVES 1	(21) AIR T	(26) VIS
(2) CONS. NO	(7) MONTH	(12) MXSAMPD	(17) WAVES 2	(22) WET B	(27) STN
(3) LAT	(8) DAY	(13) NO. DPTH	(18) WND-DIR	(23) WW-CODE	
(4) LON	(9) HR	(14) W-COLOR	(19) WND-FCE	(24) CLD-TPE	
(5) MARSD SQ	(10) C/I	(15) W-TRNSP	(20) BARO	(25) CLD-AMT	(28) HW

(1) CRUISE REFERENCE NUMBER: Assigned by the Institute. Commences with 001 at the beginning of each year (effective Jan. 1, 1963). Prior to that date the CRN was a number designated by CODC.

(2) CONSECUTIVE NUMBER: Indicates the chronological order in which the stations were occupied.

(3) LATITUDE: Indicate the position of the platform at the time of observation.

(4) LONGITUDE:

(5) MARSDEN SQUARE: Designates the geographic area code of the observation (see Marsden square chart).

(6) YEAR:

(7) MONTH:

(8) DAY:

(9) HOUR: The time (Greenwich Mean Time) at which the surface environmental data were recorded. It is reported to tenths of hours (Table 1). If an "X" precedes the value for HOUR, (prior to Jan. 1, 1963) it indicates that the reported time is doubtful.

(10) COUNTRY/INSTITUTE: The International Geophysical Year (IGY) Country Code/Institute Code - see Table 11.

(11) DEPTH: The sounding reported in metres. If corrected, this is stated in the "GENERAL INFORMATION" chapter of section III. Charted depths are preceded by the letter "C".

(12) MAXIMUM SAMPLING DEPTH: A code to indicate the deepest sampling depth (used for high speed sorting).  
 00 m - 50 m = 00  
 51 m - 150 m = 01  
 151 m - 250 m = 02  
 etc.

## (13) NUMBER OF DEPTHS:

The number of levels observed (this is entered to initiate a computer safety check, guarding against the loss of punch-cards).

## (14) WATER COLOUR:

A code based on the percentage of yellow (see table 2 and Note under FIELD "15" below).

## (15) WATER

TRANSPARENCY:

The depth in metres at which a Secchi disc (white disc, 30 cm. in diameter) just disappears from view, or the optical density expressed in percentage;

NOTE: The "GENERAL INFORMATION" chapter in section III of the data record will state which method was used.

## (16) WAVES 1

( $d_w d_w P_w H_w$ -code): The direction, period and height of the **wind-propagated** wave system. (See Tables 3, 4 and 5). Ref: World Meteorological Organization Codes 0885, 3155, 1555.

## (17) WAVES 2

( $d_w d_w P_w H_w$ -code): The direction, period and height of the predominant **non-wind-propagated** wave system. (See Tables 3, 4 and 5). Ref: World Meteorological Organization Codes 0885, 3155, 1555.

## (18) WIND DIRECTION:

The true direction to the nearest 10 degrees from which the wind is blowing (wind direction 990 means:—wind variable or direction unknown).

## (19) WIND FORCE

(WND-FCE): Beaufort notation (See Table 6).

WIND SPEED  
(WND-SPD):

Anemometer reading reported in metres per second. Instrument height reported in "GENERAL INFORMATION" chapter of section III.

## (20) BAROMETER:

The barometric pressure reported in millibars: the "GENERAL INFORMATION" chapter in Section III of the data record will state the type of instrument used.

(21) AIR  
TEMPERATURE:

In degrees Celsius.

## (22) WET BULB:

In degrees Celsius.

## (23) ww CODE:

Present Weather Code (See Table 7). Ref: WMO Code 4677

## (24) CLOUD TYPE:

The type of predominating clouds (See Table 8). Ref: WMO Code 0500.

## (25) CLOUD AMOUNT:

The sky coverage in eighths (See Table 9) Ref: WMO Code 2700

## (26) VISIBILITY:

Visibility at the surface (See Table 10). Ref: WMO Code 4300.

## (27) STATION:

A station reference number, assigned by the institute prior to, or during the survey.

(28) HOURS AFTER  
HIGH WATER:

Indicates the state of the tide for nearshore observations.

## OBSERVED DATA HEADINGS

(1) <i>GMT</i>	(2) <i>DEPTH</i>	(3) <i>TEMP</i>	(4) <i>SAL</i>	(5) <i>OXYGEN</i>	(6) <i>SGMT</i>
(7) <i>SOUND</i>	(8) <i>PO<sub>4</sub></i>	(9) <i>-P-</i>	(10) <i>NO<sub>2</sub></i>	(11) <i>NO<sub>3</sub></i>	(12) <i>SiO<sub>2</sub></i>
					(13) <i>pH</i>

NOTE: Headings (1) to (7) will always be present. Headings (8) to (13) appear only when one or more additional chemical entries were made.

(1) **G.M.T.:** The Greenwich Mean Time of (in-situ) thermometer inversion and sea water sample collection.

When a multiple cast was initiated prior to and continued after midnight, the times indicated are uninterrupted by the change of day and appear beyond 24.0 hours. This will be accompanied by a statement: "MULTIPLE CAST CONTINUED NEXT DAY", which is printed following the last level of observed values.

(2) **DEPTH:** The depth in metres at the reversal time of deepest cast.

(3) **TEMPERATURE.** Temperatures from deepsea reversing thermometers, read to 0.01° C. Surface temperature measurement procedures are described in the chapter "OBSERVATION PROCEDURES" of section I, and/or the "GENERAL INFORMATION" chapter of section III. An alphabetical character following the temperature value represents the measurement error estimate referred to in the INTRODUCTION to this section.

(4) **SALINITY:** Salinity as defined by:  $S = 0.03 + 1.805 C1\%$ , reported in:

- 1/100 parts per 1000, or
- 1/1000 parts per 1000.

In case a: an alphabetical character following the value is the measurement error estimate as referred to under (3).

In case b: no error estimate indication is provided for, but an additional decimal digit takes its place.

(5) **OXYGEN:** The concentration of dissolved oxygen expressed in millilitres per litre to 2 decimal places. An alphabetical character following the value is the measurement error estimate as referred to under (3).

(6) **SIGMA-T:** The specific gravity anomaly as defined by:  $(\text{Specific gravity} - 1) \times 10^3$  (e.g.,  $\sigma_t$  reported as 2456, reads 24.56, and corresponds to a specific gravity of 1.02456).

(7) **SOUND:** The sound velocity is reported in m/sec. to 1 decimal place (e.g., 1437.9 m/sec.). The computation is carried out using Wilson's formula (1960), expressed in terms of temperature, salinity and total pressure.

(8) PO <sub>4</sub>	Phosphate-Phosphorus reported to hundredths of microgram-atoms per litre.
(9) -P-	Total Phosphorus reported to hundredths of microgram-atoms per litre.
(10) NO <sub>2</sub>	Nitrite-Nitrogen reported to hundredths of microgram-atoms per litre — No dissolved nitrogen included —
(11) NO <sub>3</sub>	Nitrate-Nitrogen reported to tenths of microgram-atoms per litre.
(12) SiO <sub>2</sub>	Silicate-Silicon reported in whole microgram-atoms per litre.
(13) pH	The pH value.

NOTE: "TRC" (trace) is reported when a chemical entry has a value less than the standard deviation of measurement for that particular variable.

#### INTERPOLATED DATA HEADINGS

(1) DEPTH	(2) TEMP	(3) SAL	(4) OXYGEN	(5) SGMT	(6) SOUND
(7) DELTA-D	(8) POT-EN	(9) SVA.			

(1) DEPTH: Standard Oceanographic Depth in whole metres, as well as additional depths: 125, 175, 225, 3500, 4500, 5500, 6500, 7500, 8500, 9500.

(2) TEMPERATURE: Interpolated value at standard depth, followed by the combined measurement and interpolation error estimate (see "INTRODUCTION" to section II of the data record).

(3) SALINITY: A. The reported salinity values are measured to three decimal places.  
 (i) the interpolation error estimate is less than twice the standard deviation of measurement  
     —the interpolated value is reported to three decimal places (e.g., 30.139).  
 (ii) the interpolation error estimate is equal to or greater than twice the standard deviation of measurement.  
     —the interpolated value is reported to two decimal places, and followed by the interpolation error estimate (e.g., 29.23 C).  
 B. The reported salinity values are measured to two decimal places and followed by the measurement error estimate.  
     —the interpolated value is reported to two decimal places, and followed by the combined measurement and interpolation error estimate (e.g., 30.59 B).

(4) OXYGEN: Interpolated value at standard depth, followed by the combined measurement and interpolation error estimate (see "Introduction" to section II of the data record).

(5) SIGMA-T: Computed from temperature and salinity values at standard oceanographic depth.

(6) SOUND VELOCITY: Computed from temperature, salinity and total pressure values at standard oceanographic depth, using Wilson's formula (1960).

(7) DELTA-D: The geo-potential anomaly as defined by:

$$\Delta D = \int_o^p \delta dp$$

$\Delta D$  is expressed in dynamic metres ( $10^5$  ergs/gram) and recorded to three decimal places (e.g., 2.345 dyn. metres).

(8) POTENTIAL ENERGY ANOMALY: The Potential energy anomaly  $\chi$  as defined by:

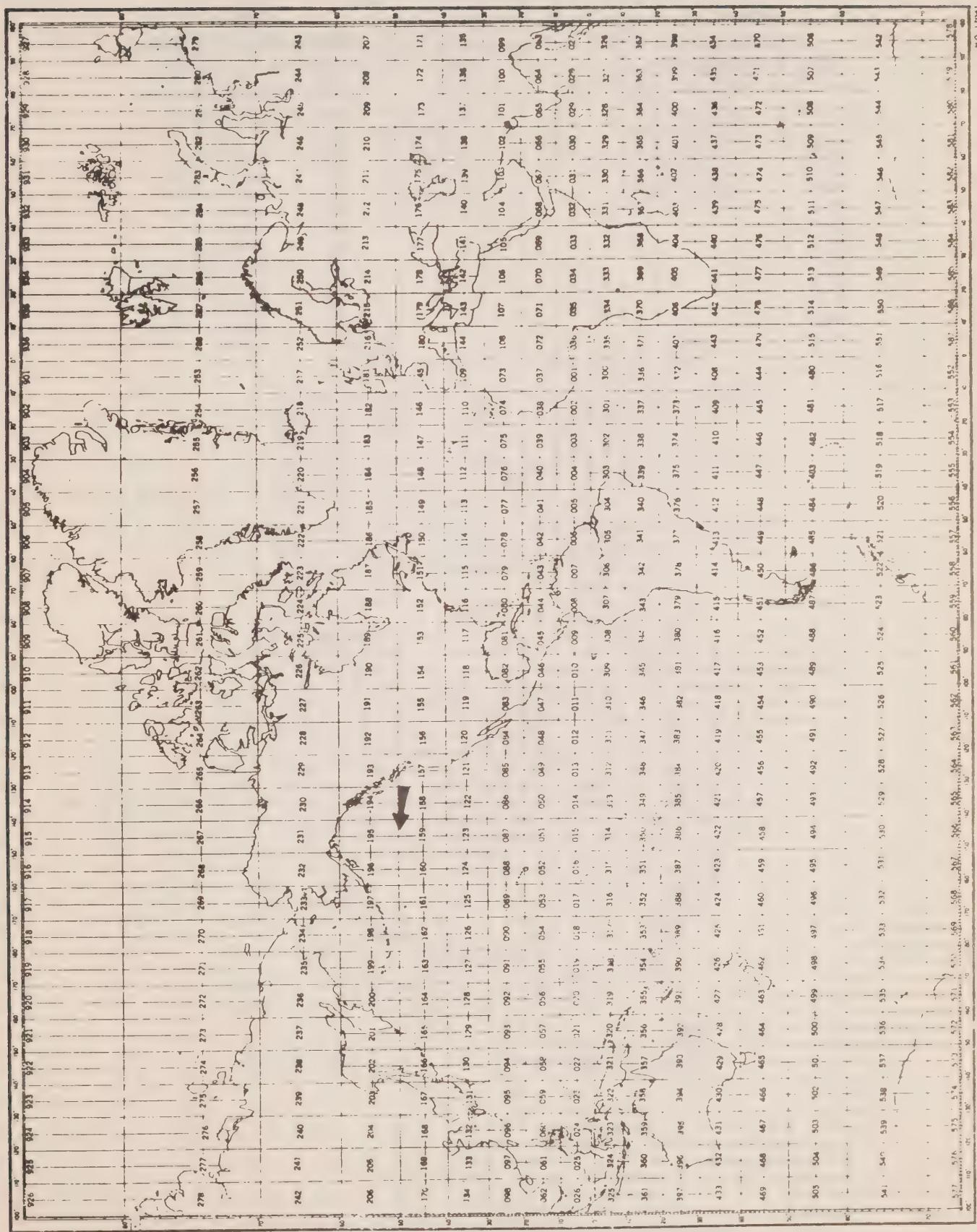
$$\chi = 1/g \int_o^p p \delta dp = \int_o^z \rho p \delta dz$$

$\chi$  is expressed in units of  $10^8$  ergs/cm<sup>2</sup> and recorded to two decimal places (e.g., 116.44).

(9) SPECIFIC VOLUME ANOMALY: The specific volume anomaly as defined by:

$$\delta = \alpha - \alpha_{35.0.P}$$

$\delta$  is expressed in ml/gr, and conventionally reported as  $10^5 \delta$ , to one decimal place (i.e.,  $\delta$  reported as 1234, reads 123.4, and corresponds to a specific volume anomaly of 0.001234 ml/gr.).



## MARSDEN SQUARE CHART

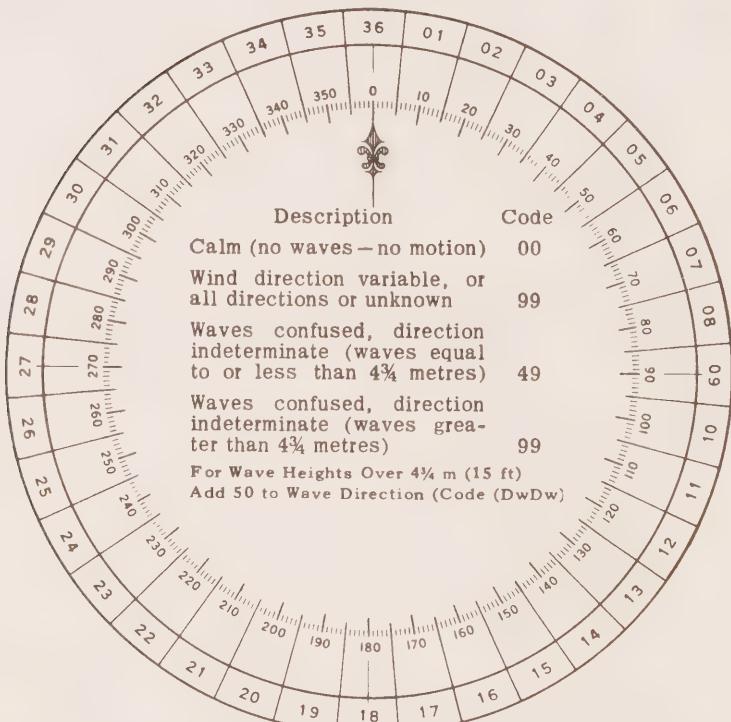
Table 1  
CONVERSION  
MINUTES TO  $\frac{1}{10}$  HRS.

Minutes	Tenths Hrs.
00-03	0
04-08	1
09-15	2
16-20	3
21-27	4
28-32	5
33-39	6
40-44	7
45-51	8
52-56	9
57-59	0 (next HR.)

Table 2  
WATER COLOR CODE  
Based on Percentage Yellow

Code:	Description
00	Deep Blue
10	Blue
20	Greenish Blue
30	Bluish Green
40	Green
50	Light Green
60	Yellowish Green
70	Yellow Green
80	Green Yellow
90	Greenish Yellow
99	Yellow

Table 3. DIRECTION CODE (dd)



## NOTE:

Always use the true direction from which the wind is blowing, or the direction from which Waves I (sea), or Waves II (swell) come.

**Table 4. PERIOD OF THE WAVES (P<sub>w</sub>)**  
 (Measure to the Nearest Second)

Code:	Period in Seconds:	Code:	Period in Seconds:
2	5 sec. or less	8	16 or 17 sec.
3	6 or 7 sec.	9	18 or 19 sec.
4	8 or 9 sec.	0	20 or 21 sec.
5	10 or 11 sec.	1	Over 21 sec.
6	12 or 13 sec.	X	Calm, or period not determined
7	14 or 15 sec.		

**Table 5. HEIGHT OF THE WAVES (H<sub>w</sub>)**

- The average value of the wave height (vertical distance between trough and crest) is reported, as obtained from the larger well formed waves of the wave system being observed.
- Each code figure provides for reporting a range of heights. For example: 1 =  $\frac{1}{4}$  m (1 ft) to  $\frac{3}{4}$  m (2 $\frac{1}{2}$  ft); 5 =  $2\frac{1}{4}$  m (7 ft) to  $2\frac{3}{4}$  m (9 ft); 9 =  $4\frac{1}{4}$  m (13 $\frac{1}{2}$  ft) to  $4\frac{3}{4}$  m (15 ft), etc.
- If a wave height comes exactly midway between the heights corresponding to two code figures, the lower code figure is reported; e.g. a height of  $2\frac{3}{4}$  m is reported by code figure 5.

Code	Code
0 Less than $\frac{1}{4}$ m (1 ft)	0 5 m (16 ft)
1 $\frac{1}{2}$ m (1 $\frac{1}{2}$ ft)	1 $5\frac{1}{2}$ m (17 $\frac{1}{2}$ ft)
2 1 m (3 ft)	2 6 m (19 ft)
3 $1\frac{1}{2}$ m (5 ft)	Add 3 $6\frac{1}{2}$ m (21 ft)
4 2 m (6 $\frac{1}{2}$ ft)	50 4 7 m (22 $\frac{1}{2}$ ft)
5 $2\frac{1}{2}$ m (8 ft)	to 5 $7\frac{1}{2}$ m (24 ft)
6 3 m (9 $\frac{1}{2}$ ft)	Dw Dw 6 8 m (25 $\frac{1}{2}$ ft)
7 $3\frac{1}{2}$ m (11 ft)	7 8 $\frac{1}{2}$ m (27 ft)
8 4 m (13 ft)	8 9 m (29 ft)
9 $4\frac{1}{2}$ m (14 ft)	9 $9\frac{1}{2}$ m (30 $\frac{1}{2}$ ft) or more
x Height not determined	

Table 6. WIND FORCE CODE

The Beaufort force of the wind is estimated from the appearance of the sea surface, according to the table below. This table is only intended as a guide to show roughly what may be expected on the open sea, remote from land. Factors which must be taken into account are the "lag" effect between the wind increasing and the sea getting up; and the influence of "fetch", depth, swell, heavy rain and tide effect on the appearance of the sea. Estimation of the wind force by this method becomes unreliable in shallow water or when close inshore, owing to the tidal effect and the shelter provided by the land.

Code	Appearance of sea if fetch and duration of the blow have been sufficient to develop the sea fully	Description
00	Sea like a mirror	Calm
01	Ripples with the appearance of scales are formed, but without foam crests.	Light Air
02	Small wavelets; crests have a glassy appearance and do not break.	Light Breeze
03	Large wavelets; crests begin to break; foam of glassy appearance; perhaps scattered white horses.	Gentle Breeze
04	Small waves, becoming longer; fairly frequent white horses.	Moderate breeze
05	Moderate waves; many white horses are formed (chance of some spray)	Fresh Breeze
06	Large waves; white foam crests everywhere (probably some spray)	Strong Breeze
07	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.	Near Gale
08	Moderately high waves; edges of crests begin to break into the spindrift; foam is blown in well-marked streaks along the direction of the wind.	Gale
09	High waves; dense streaks of foam along wind; crests begin to topple, tumble and roll over; spray may affect visibility.	Strong Gale
10	Very high waves with long overhanging crests; foam in great patches blown in dense white streaks along wind; sea surface takes a white appearance; tumbling becomes heavy and shock-like; visibility affected.	Storm
11	Exceptionally high waves (medium sized ships may be lost to view behind waves); sea covered with long white patches of foam lying along the wind; everywhere edges of crests are blown into froth; visibility affected.	Violent Storm
12	Air is filled with foam and spray; sea completely white with driving spray; visibility seriously affected.	Hurricane

Table 7. PRESENT WEATHER

W.W. CODE

## NO PRECIPITATION ON STATION AT TIME OF OBSERVATION

No meteors except photometeors	Code figure ww	characteristic change of the state of sky during the past hour		ww = 20 - 29	Precipitation, fog, ice fog or thunderstorm at the station during the preceding hour but not at the time of observation
		00	Cloud development not ob- served or not observable		
	01	Clouds generally dissolving or becoming less developed		20	Drizzle (not freezing) or snow grains
	02	State of sky on the whole unchanged		21	Rain (not freezing)
	03	Clouds generally forming or developing		22	Snow
	04	Visibility reduced by smoke, e.g. veldt or forest fires, industrial smoke or volcanic ashes		23	Rain and snow or ice pellets, type (a)
	05	Haze		24	Freezing drizzle or freezing rain
	06	Widespread dust in suspension in the air, not raised by wind at or near the station at the time of observation		25	Shower(s) of rain
	07	Dust or sand raised by wind at or near the sta- tion at the time of observation, but no well de- veloped dust whirl(s) or sand whirl(s), and no duststorm or sandstorm seen		26	Shower(s) of snow, or of rain and snow
	08	Well developed dust whirl(s) or sand whirl(s) seen at or near the station during the preced- ing hour or at the time of observation, but no duststorm or sandstorm		27	Shower(s) of hail, or of rain and hail
	09	Duststorm or sandstorm within sight at the time of observation, or at the station during the pre- ceding hour		28	Fog or ice fog
	10	Mist		29	Thunderstorm (with or without precipitation)
	11	Patches of shallow fog or ice fog at the sta- tion, whether on land or sea, not		ww = 30 - 39	
	12	More or less continuous	deeper than about 2 metres on land or 10 metres at sea	30	Duststorm, sandstorm, drifting or blowing snow - has decreased during the preceding hour
	13	Lightning visible, no thunder heard		31	- no appreciable change during the preceding hour
	14	Precipitation within sight, not reaching the ground or the surface of the sea		32	- has begun or has increased during the preceding hour
	15	Precipitation within sight, reaching the ground or the surface of the sea, but distant (i.e. es- timated to be more than 5 km) from the station		33	- has decreased during the preceding hour
	16	Precipitation within sight, reaching the ground or the surface of the sea, near to, but not at the station		34	- no appreciable change du- ring the preceding hour
	17	Thunderstorm, but no precipitation at the time of observation		35	- has begun or has increased during the preceding hour
	18	Squalls	at or within sight of the sta- tion during the preceding hour	36	Slight or moderate blowing snow generally low (below eye level)
	19	Funnel clouds	or at the time of observation	37	Heavy drifting snow
				38	Slight or moderate blowing snow generally high (above eye level)
				39	Heavy blowing snow
				ww = 40 - 49	
				40	Fog or ice fog at the time of observation Fog or ice fog at a distance at the time of ob- servation, but not at the station during the pre- ceding hour, the fog or ice fog extending to a level above that of the observer
				41	Fog or ice fog in patches
				42	Fog or ice fog, sky visible
				43	Fog or ice fog, sky invisible
				44	Fog or ice fog, sky visible
				45	Fog or ice fog, sky invisible
				46	Fog or ice fog, sky visible
				47	Fog or ice fog, sky invisible
				48	Fog, depositing rime, sky visible
				49	Fog, depositing rime, sky invisible

NO PRECIPITATION ON STATION AT TIME OF OBSERVATION

## PRECIPITATION ON STATION AT TIME OF OBSERVATION

ww = 50 - 59 Drizzle

50	Drizzle, not freez-	{	slight at time of observa-
51	Drizzle, not freez-		
52	Drizzle, not freez-	{	moderate at time of ob-
53	Drizzle, not freez-		
54	Drizzle, not freez-	{	heavy (dense) at time of ob-
55	Drizzle, not freez-		
56	Drizzle, freezing, slight	{	observation
57	Drizzle, freezing, moderate or heavy (dense)		
58	Drizzle and rain, slight	{	moderate or heavy
59	Drizzle and rain, moderate or heavy		

ww = 60 - 69 Rain

60	Rain, not freezing,	{	slight at time of observa-
61	intermittent		
62	Rain, not freezing,	{	moderate at time of ob-
63	intermittent		
64	Rain, not freezing,	{	heavy at time of observa-
65	intermittent		
66	Rain, freezing, slight	{	observation
67	Rain, freezing, moderate or heavy		
68	Rain or drizzle and snow, slight	{	moderate or heavy
69	Rain or drizzle and snow, moderate or heavy		

70 - 79 Solid precipitation not in showers

70	Intermittent fall of snow	{	slight at time of ob-
71	flakes		
72	Continuous fall of snow	{	moderate at time of ob-
73	flakes		
74	Intermittent fall of snow	{	heavy at time of ob-
75	flakes		
76	Ice prisms (with or without fog)	{	observation
77	Snow grains (with or without fog)		
78	Isolated starlike snow crystals (with or without fog)	{	moderate or heavy
79	Ice pellets, type (a)		

ww = 80 - 99 Showery precipitation, or precipitation with current or recent thunderstorm

80	Rain shower(s), slight	{	moderate or heavy
81	Rain shower(s), moderate or heavy		
82	Rain shower(s), violent	{	- slight
83	Shower(s) of rain and snow mixed, slight		
84	Shower(s) of rain and snow mixed, moderate or heavy	{	- moderate or heavy
85	Snow shower(s), slight		
86	Snow shower(s), moderate or heavy	{	- slight
87	Shower(s) of snow pellets or ice pellets, type (b), with or without rain		
88	or rain and snow mixed	{	- moderate or heavy
89	Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder		
90	Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder	{	- slight
91	Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder		
92	Moderate or heavy rain at time of observation	{	moderate or heavy
93	Slight snow, or rain and snow mixed or hail at time of observation		
94	Moderate or heavy snow, or rain and snow mixed or hail at time of observation	{	- slight
95	Thunderstorm, slight or moderate, without hail, but with rain and/or snow at time of observation		
96	Thunderstorm, slight or moderate, with hail at time of observation	{	- moderate or heavy
97	Thunderstorm, heavy, without hail, but with rain and/or snow at time of observation		
98	Thunderstorm, combined with duststorm or sandstorm at time of observation	{	- heavy
99	Thunderstorm, heavy, with hail at time of observation		

Table 8. CLOUD TYPE CODE

Code	Cloud Type	Code	Cloud Type
0	Cirrus .....	Ci	Nimbostratus .....
1	Cirrocumulus .....	Cc	Stratocumulus .....
2	Cirrostratus .....	Cs	Stratus .....
3	Altocumulus .....	Ac	Cumulus .....
4	Altostratus .....	As	Cumulonimbus .....
X	Cloud not visible owing to darkness, fog, dust storm, sand storm, or other analogous phenomena		

Table 9. CLOUD AMOUNT CODE

Code	Cloud Cover	Code	Cloud Cover
0	0	6	6 oktas
1	1 okta or less, but not zero	7	7 oktas or more, but not 8 oktas
2	2 oktas	8	8 oktas
3	3 oktas	9	Sky obscured, or cloud amount cannot be estimated
4	4 oktas		
5	5 oktas		

Note: 1 okta =  $\frac{1}{8}$  of the sky covered

Table 10. VISIBILITY

Code	Estimate of hor. Visibility	
0	Less than 50 metres	(less than 55 yards)
1	50-200 metres	(approx. 55-220 yards)
2	200-500 metres	(approx. 220-550 yards)
3	500-1,000 metres	(approx. 550 yards- $\frac{5}{6}$ n.m.)
4	1-2 km	(approx. $\frac{5}{6}$ -1 n.m.)
5	2-4 km	(approx. 1-2 n.m.)
6	4-10 km	(approx. 2-6 n.m.)
7	10-20 km	(approx. 6-12 n.m.)
8	20-50 km	(approx. 12-30 n.m.)
9	50 km or more	(30 n.m. or more)

Note: n.m. = nautical mile

TABLE 11. INSTITUTE CODE

Code	Institute
01	Marine Ecology Laboratory, Bedford Institute
02	Pacific Oceanographic Group
03	Biological Station, St. Andrews, N.B.
04	Arctic Biological Station, Ste. Anne de Bellevue, P.Q.
05	Biological Station, St. John's Nfld.
06	Station de Biologie Marine, Grande Riviere, P.Q.
07	Marine Sciences Branch, Central Region
08	Defence Research Establishment, Atlantic
09	Defence Research Establishment, Pacific
10	Atlantic Oceanographic Laboratory, Bedford Institute
11	Polar Continental Shelf Project
12	Great Lakes Institute
13	Institute of Oceanography, University of British Columbia
14	Institute of Oceanography, Dalhousie University
15	Marine Sciences Branch, Pacific Region
16	Department of Transport
17	Marine Sciences Centre, McGill University
18	Canadian Forces Maritime Command, East Coast
19	Canadian Forces Maritime Command, West Coast
20	Ontario Water Resources Commission
21	Dept. of National Health and Welfare
22	Inland Waters Branch, Dept. of Energy, Mines and Resources.

### SECTION III

Serial oceanographic data



GENERAL INFORMATION

Institute: Pacific Oceanographic Group,  
 Nanaimo, B.C.  
Observation platform: CCGS "Vancouver"  
Vessel's cruising speed: 18 knots  
Total number of stations occupied: 24  
Anemometer height above sea level: 19 metres  
Water transparency: Secchi Disc  
Barometer readings: Aneroid Barometer (corrected)  
Air temperature: Fixed Thermometer  
Wet bulb temperature: Fixed Thermometer  
Surface sea water temperature: Bucket sample (deck thermometer)  
Depth to bottom: U.S. Coast & Geodetic Survey  
 Chart 8500

The following Standard Deviations were used to express both measurement and interpolation error estimates.

Temperature	0.02
Salinity	0.003
Oxygen	0.03



C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 1522 AIR T 06.2 VIS 3  
 CONS. NO 001 MONTH 2 MXSAMPD 42 WAVES 2 1467 WET B 05.9 STN 101  
 LAT 49-58 N DAY 29 NO.DPTH 26 WND-DIR 150 W-W-CODE 52  
 LON 145-00 W HR 21.2 W-COLOR 10 WND-SPD 07 CLD-TPE 8  
 MARSD SQ 159 C/I 1802 W-TRNSP 16 BARO 981.8 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	
212	0000	050	B	32571	712	2577	14678
212	0010	0491		32565	715 B	2578	14676
212	0020	0492		32564	720	2578	14678
212	0030	0489		32567	722	2578	14678
212	0049	0482		32579	720	2580	14678
212	0074	0477		32580	722	2581	14680
212	0099	0475		32585	722	2581	14684
212	0123	0442		32670	701	2592	14675
212	0148	0393		33228	497 C	2641	14666
212	0172	0392	B	33534	374 B	2665	14674
212	0197	0388	B	33697	293	2678	14678
212	0246	0372		33722	200	2682	14680
212	0296	0361		33874	126 B	2695	14686
212	0394	0357		34000	082	2706	14702
212	0493	0350		34101	067 C	2714	14717
235	0593	0337		34193	075 B	2723	14729
235	0800	0315		34298	055 B	2733	14755
235	1000	0285		34389	047 C	2743	14777
235	1200	0258		34452	049 C	2751	14800
235	1500	0232		34504	064 B	2757	14840
235	2000	0193		34587	129 C	2767	14908
235	2500	0173		34627	189 C	2772	14986
235	3000	0159		34658	249 C	2775	15067
235	3500	0153	B	34665	293	2776	15151
235	4000	0151		34673	313	2777	15239
235	4200	0153	B				

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA	
0000	0500	B	32571	712	2577	14678	0000	00000	2230
0010	0491		32565	715 B	2578	14676	0022	00001	2226
0020	0492		32564	720	2578	14678	0045	00005	2228
0030	0489		32567	722	2578	14678	0067	00010	2224
0050	0482		32579	720	2580	14678	0112	00029	2209
0075	0477		32579	722	2581	14681	0167	00064	2206
0100	0474		32583	723	2581	14684	0223	00114	2202
0125	0437		3271	C 687	2595	14674	0277	00176	2071
0150	0392		33261	485 C	2643	14666	0323	00241	1614
0175	0392	B	33560	362 B	2667	14674	0361	00303	1391

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0200	0387 B	3370 B	286	2679	14678	0395	00368	1282
0225	0379	3373 G	233	2682	14680	0427	00438	1257
0250	0371	33733	193	2683	14680	0458	00515	1246
0300	0361	33882	123 B	2696	14686	0518	00683	1128
0400	0357	34007	080	2706	14703	0627	01074	1038
0500	0349	34108	067 C	2715	14717	0728	01539	0962
0600	0336	34198	075 B	2723	14730	0822	02066	0889
0700	0326	3426 B	067 B	2729	14743	0909	02650	0843
0800	0315	34298	055 B	2733	14755	0993	03292	0806
1000	0285	34389	047 C	2743	14777	1147	04712	0719
1200	0258	34452	049 C	2751	14800	1286	06281	0654
1500	0232	34504	064 B	2757	14840	1478	08929	0602
2000	0193	34587	129 C	2767	14909	1762	14009	0518
2500	0173	34627	189 C	2772	14986	2016	19897	0482
3000	0159	34658	249 C	2775	15067	2256	26686	0456
3500	0153 B	34665	293	2776	15152	2490	34547	0457
4000	0151	34673	313	2777	15239	2725	43707	0462

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 1822 AIR T 07.4 VIS 7  
 CONS. NO 002 MONTH 3 MXSAMPD 04 WAVES 2 1857 WET B 06.4 STN 102  
 LAT 49-53 N DAY 02 NO.DPTH 14 WND-DIR 180 WND-CODE  
 LON 145-00 W HR 19.5 W-COLOR 10 WND-SPD 11 CLD-TPE 6  
 MARSD SQ 159 C/I 1802 W-TRNSP 14 BARO 989.1 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
195	0000	052 B	32534	715	2572	14686
195	0010	0494	32561	721	2577	14677
195	0020	0496	32559	723	2577	14679
195	0030	0494	32560	720	2577	14680
195	0050	0493	32566	720	2578	14683
195	0075	0477	32583	718 C	2581	14681
195	0100	0465	32607	713	2584	14680
195	0125	0428	32876	631	2609	14672
195	0150	0391	33353	446 B	2651	14667
195	0175	0385 B	33633	321	2674	14673
195	0200	0375	33722	262	2682	14674
195	0225	0369	3376 C	221 B	2685	14676
195	0250	0365 B	33784	189 C	2688	14678
195	0300	0362	33882	134 B	2696	14687
195	0400	0355	33976	100	2704	14702

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0520 B	32534	715	2572	14686	0000	00000	2279
0010	0494	32561	721	2577	14677	0023	00001	2232
0020	0496	32559	723	2577	14679	0045	00005	2236
0030	0494	32560	720	2577	14680	0068	00010	2234
0050	0493	32566	720	2578	14683	0113	00029	2231
0075	0477	32583	718 C	2581	14681	0168	00065	2203
0100	0465	32607	713	2584	14680	0224	00114	2175
0125	0428	32876	631	2609	14672	0275	00173	1937
0150	0391	33353	446 B	2651	14667	0319	00235	1544
0175	0385 B	33633	321	2674	14673	0355	00295	1330
0200	0375	33722	262	2682	14674	0388	00357	1255
0225	0369	3376 C	221 B	2685	14676	0419	00425	1222
0250	0365 B	33784	189 C	2688	14678	0450	00500	1202
0300	0362	33882	134 B	2696	14687	0508	00665	1130
0400	0355	33976	100	2704	14702	0619	01061	1060

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 1323 AIR T 05.7 VIS 6  
 CONS. NO 003 MONTH 3 MXSAMPD 04 WAVES 2 1645 WET B 05.2 STN 103  
 LAT 50-00 N DAY 05 NO.DPTH 14 WND-DIR 130 WWD-CODE 60  
 LON 144-56 W HR 19.2 W-COLOR 10 WND-SPD 15 CLD-TPE X  
 MARSC SQ 195 C/I 1802 W-TRNSP 16 BARO 988.8 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
192	0000	053	B	32573	714 B	2574 14690
192	0010	0495		32566	714 B	2578 14677
192	0020	0497		32565	720	2577 14680
192	0030	0495		32564	714 B	2577 14680
192	0050	0494		32565	722	2578 14683
192	0074	0455		32602	720	2585 14672
192	0099	0432		32635	714 B	2590 14666
192	0124	0417		32909	628 C	2613 14668
192	0149	0394		33349	446 B	2650 14668
192	0174	0386 B		33590	341	2670 14672
192	0198	0383 B		33734	261	2682 14677
192	0248	0377		33808	200	2688 14684
192	0298	0364		33872	134 B	2695 14687
192	0396	0354		34001	076 B	2706 14701

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0530 B	32573	714 B	2574	14690	0000	00000	2260
0010	0495	32566	714 B	2578	14677	0023	00001	2229
0020	0497	32565	720	2577	14680	0045	00005	2233
0030	0495	32564	714 B	2577	14680	0068	00010	2233
0050	0494	32565	722	2578	14683	0112	00029	2232
0075	0454	32601	721	2585	14671	0168	00064	2166
0100	0431	32642	712 B	2590	14666	0222	00112	2114
0125	0416	32927	621 C	2615	14668	0272	00170	1887
0150	0393	33361	441 B	2651	14668	0315	00231	1540
0175	0386 B	33598	337	2671	14672	0352	00291	1357
0200	0383 B	33740	257	2682	14677	0385	00354	1249
0225	0380	3379 D	220 B	2687	14681	0416	00422	1208
0250	0376	33811	197	2689	14684	0446	00496	1194
0300	0367	33877	139 B	2695	14689	0505	00661	1138
0400	0354	34006	074 B	2706	14701	0614	01053	1036

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 2022 AIR T 06.7 VIS 7  
 CONS. NO 004 MONTH 3 MXSAMPD 20 WAVES 2 2668 WET B 05.8 STN 104  
 LAT 50-03 N DAY 07 NO.DPTH 21 WND-DIR 200 WW-CODE 60  
 LON 145-01 W HR 19.6 W-COLOR 10 WND-SPD 10 CLD-TPE 8  
 MARSD SQ 195 C/I 1802 W-TRNSP 14 BARO 994.5 CLD-AMT 6 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	
196	0000	052	B	32569	713	2575	14686
196	0010	0501		32568	714 B	2577	14680
196	0019	0503		32568	713	2577	14682
196	0029	0501		32564	712	2577	14683
196	0048	0499		32565	713	2577	14685
196	0072	0494		32573	715 B	2578	14687
196	0097	0454		32662	703	2590	14676
196	0121	0408		33154	540	2633	14667
196	0145	0399		33425	438 C	2656	14671
196	0169	0392	B	33635	332	2673	14675
196	0193	0385	B	33715	275 B	2680	14677
196	0241	0372	B	33791	204 B	2688	14680
196	0290	0364		33876	157 C	2695	14686
196	0386	0357		34012	100	2707	14701
223	0494	0351		34125	074 B	2716	14717
223	0593	0340		34200	064 B	2723	14730
223	0790	0310		34303	053	2734	14751
223	0986	0283			065 B		
223	1183	0261		34447	061	2750	14798
223	1479	0233		34498	074 B	2756	14836
223	1976	0196		34575	119 C	2766	14906

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA		
0000	0520	B	32569	713	2575	14686	0000	00000	2253	
0010	0501		32568	714 B	2577	14680	0023	00001	2234	
0020	0503		32568	713	2577	14682	0045	00005	2237	
0030	0501		32564	712	2577	14683	0068	00010	2239	
0050	0499		32564	713	2577	14686	0113	00029	2239	
0075	0490		3257	B	718 B	2578	14686	0169	00065	
0100	0447		3272	D	685 B	2595	14674	0223	00113	2073
0125	0405		3321	B	521	2638	14667	0270	00167	1664
0150	0397		33477		414 C	2660	14672	0309	00222	1457
0175	0390	B	33662		315	2676	14675	0344	00280	1313
0200	0383	B	33729		262 B	2682	14677	0377	00342	1257
0225	0376	B	3377	B	223 B	2686	14679	0408	00410	1221
0250	0370	B	33807		194 B	2689	14681	0438	00484	1190
0300	0363		33892		149 C	2696	14687	0497	00649	1123
0400	0356		34029		095	2708	14703	0605	01035	1021

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0500	0350	34130	073 B	2717	14718	0704	01493	0947
0600	0339	34204	063 B	2724	14731	0797	02015	0887
0700	0324	34261	056	2730	14742	0884	02596	0836
0800	0309	34308	054	2735	14753	0966	03230	0792
1000	0281	34390	065 B	2744	14775	1119	04634	0714
1200	0259	34451	061	2750	14800	1258	06201	0657
1500	0231	3451 C	073 B	2758	14839	1448	08834	0594
2000	0195	34576	122 C	2766	14909	1733	13932	0527

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 2323 AIR T 04.9 VIS 7  
 CONS. NO 005 MONTH 3 MXSAMPD 04 WAVES 2 2457 WET B 03.4 STN 105  
 LAT 49-59 N DAY C9 NO.DPTH 14 WND-DIR 230 WW-CODE 02  
 LON 145-01 W HR 19.1 W-COLOR 10 WND-SPD 12 CLD-TPE 8  
 MARSD SQ 159 C/I 1802 W-TRNSP 14 BARO 1008.6 CLD-AMT 2 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	
191	0000	050	B	32570	719 C	2577	14678
191	0010	0491		32563	705 B	2578	14676
191	0020	0493		32562	721	2578	14678
191	0030	0489		32564	716 B	2578	14678
191	0050	0477			721		
191	0075	0466		32575	719 C	2581	14676
191	0100	0444		32605	716 B	2586	14671
191	0125	0416		32944	619 C	2616	14668
191	0150	0390		33312	467 C	2648	14666
191	0175	0385 B		33582	347 C	2670	14672
191	0200	0376 B		33708	274 B	2681	14674
191	0250	0370		33803	206 B	2689	14681
191	0300	0365		33883	153	2696	14688
191	0400	0355		34039	096 B	2709	14702

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0500 B	32570	719 C	2577	14678	0000	00000	2231
0010	0491	32563	705 B	2578	14676	0022	00001	2227
0020	0493	32562	721	2578	14678	0045	00005	2231
0030	0489	32564	716 B	2578	14678	0067	00010	2226
0050	0477	32565	721	2580	14676	0112	00029	2214
0075	0466	32575	719 C	2581	14676	0168	00064	2198
0100	0444	32605	716 B	2586	14671	0222	00113	2155
0125	0416	32944	619 C	2616	14668	0273	00171	1874
0150	0390	33312	467 C	2648	14666	0316	00232	1574
0175	0385 B	33582	347 C	2670	14672	0353	00294	1368
0200	0376 B	33708	274 B	2681	14674	0387	00357	1266
0225	0372 B	3377 C	233 B	2686	14677	0418	00426	1218
0250	0370	33803	206 B	2689	14681	0448	00500	1193
0300	0365	33883	153	2696	14688	0507	00665	1132
0400	0355	34039	096 B	2709	14702	0615	01051	1012

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 3522 AIR T 05.2 VIS 3  
 CONS. NO 006 MONTH 3 MXSAMPE 04 WAVES 2 2169 WET B 04.9 STN 106  
 LAT 50-03 N DAY 11 NO.DPTF 14 WND-DIR 350 WW-CODE 43  
 LON 145-04 W HR 18.9 W-COLOR 10 WND-SPD 08 CLD-TPE  
 MARSD SQ 195 C/I 1802 W-TRNSP 18 BARO 970.0 CLD-AMT 9 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND
189	0000	050	B	32565	715 B	2577 14678
189	0010	0489		32549	721	2577 14675
189	0020	0489		32551	721	2577 14676
189	0030	0487		32559	721	2578 14677
189	0049	0486		32557	718 C	2578 14680
189	0074	0479		32578	717 C	2580 14681
189	0099	0416		32715	697 C	2598 14661
189	0124	0413		33148	544 B	2632 14669
189	0149	0394		33407	436 B	2655 14669
189	0173	0383		33608	335 B	2672 14671
189	0198	0371 B		33696	272	2680 14671
189	0247	0361 B		33800	176 B	2689 14677
189	0297	0360		33901	124 B	2697 14686
189	0395	0355		34016	094 B	2707 14701

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0500 B	32565	715 B	2577	14678	0000	00000	2234
0010	0489	32549	721	2577	14675	0022	00001	2236
0020	0489	32551	721	2577	14676	0045	00005	2235
0030	0487	32559	721	2578	14677	0067	00010	2228
0050	0486	32556	718 C	2578	14680	0112	00029	2231
0075	0476	32580	718 C	2581	14680	0168	00065	2205
0100	0415	32731	692 C	2599	14661	0221	00112	2032
0125	0412	33161	539 B	2633	14670	0269	00166	1708
0150	0393	33417	431 B	2656	14669	0309	00223	1498
0175	0382	33618	329 B	2673	14671	0345	00282	1338
0200	0370 B	33701	267	2681	14671	0377	00345	1266
0225	0364 B	33759	214	2686	14674	0409	00413	1218
0250	0361 B	33807	172 B	2690	14677	0439	00487	1181
0300	0357 B	3390 B	116 B	2698	14685	0497	00650	1111
0400	0355	34020	096 B	2707	14702	0605	01035	1027

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 0122 AIR T 05.2 VIS 7  
 CONS. NO 007 MONTH 3 MXSAMPD 15 WAVES 2 2761 WET B 04.3 STN 107  
 LAT 50-00 N DAY 14 NO.DPTH 20 WND-DIR 010 WW-CCDE 03  
 LON 145-00 W HR 20.7 W-COLOR 10 WND-SPD 10 CLD-TPE 6  
 MARSD SQ 195 C/I 1802 W-TRNSP 18 BARO 1010.8 CLD-AMT 6 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND	
207	0000	052	B	32562	717 C	2575	14686
207	0010	0496		32553	720	2576	14677
207	0020	0495		32553	719 C	2577	14679
207	0030	0489		32550	714 B	2577	14678
207	0050	0486		32553	715 B	2578	14680
207	0074	0466		32582	715 B	2582	14676
207	0099	0446		32634	705 B	2588	14672
207	0124	0410		33112	556 B	2630	14668
207	0148	0400		33423	440	2656	14672
207	0173	0392	B	33583	362	2669	14675
207	0198	0381	B	33692	287 C	2679	14675
207	0247	0369		33792	216 B	2688	14680
207	0297	0361		33863	151	2694	14686
207	0397	0358		34011	115 B	2706	14703
207	0496	0353		34109	086 B	2715	14718
207	0596	0341		34190	078 C	2722	14731
222	0800	0308		34296	052	2734	14752
222	1000	0283		34383	057 C	2743	14776
222	1200	0258		34444	067 C	2750	14800
222	1500	0229		34505	080	2757	14838

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA	
0000	0520	B	32562	717 C	2575	14686	0000	00000	2258
0010	0496		32553	720	2576	14677	0023	00001	2240
0020	0495		32553	719 C	2577	14679	0045	00005	2240
0030	0489		32550	714 B	2577	14678	0068	00010	2237
0050	0486		32553	715 B	2578	14680	0113	00029	2233
0075	0465		32580	716 B	2582	14676	0168	00065	2194
0100	0444		3265	700 B	2590	14672	0223	00113	2121
0125	0409		33128	551 B	2631	14668	0271	00168	1729
0150	0399		33440	433	2657	14672	0312	00225	1487
0175	0391	B	33593	355	2670	14675	0348	00285	1365
0200	0380	B	33698	283 C	2679	14676	0381	00349	1278
0225	0373		3376	241 C	2685	14678	0413	00418	1228
0250	0368		33797	212 B	2688	14680	0443	00492	1196
0300	0361		33868	149	2695	14686	0502	00658	1139
0400	0358		34014	114 B	2707	14703	0612	01050	1034
0500	0353		34113	086 B	2715	14719	0712	01514	0962

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0600	0340	34193	077 C	2723	14731	0806	02043	0897
0700	0324	34250	064 B	2729	14742	0894	02630	0845
0800	0308	34296	052	2734	14752	0978	03271	0800
1000	0283	34383	057 C	2743	14776	1131	04689	0721
1200	0258	34444	067 C	2750	14800	1271	06268	0660
1500	0229	34505	080	2757	14838	1463	08917	0598

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 2834 AIR T 05.4 VIS 7  
 CONS. NO 008 MONTH 3 MXSAMPD 04 WAVES 2 2763 WET B 03.9 STN 108  
 LAT 49-56 N DAY 16 NO.DPTH 14 WND-DIR 280 WW-CODE 81  
 LON 145-03 W HR 20.3 W-COLOR 10 WND-SPD 11 CLD-TPE 6  
 MARSD SQ 159 C/I 1802 W-TRNSP 16 BAKO 1016.2 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND		
203	0000	049	B	32562	715	B	2578	14673
203	0010	0490		32558	697	C	2578	14675
203	0020	0491		32553	713		2577	14677
203	0030	0489		32552	718	B	2577	14678
203	0040	0488		32554	720		2577	14681
203	0074	0478		32563	718	C	2579	14681
203	0099	0453		32642	702		2588	14675
203	0124	0420		32921	618	C	2614	14669
203	0148	0398		33427	434	B	2656	14671
203	0173	0398		33591	362		2669	14677
203	0198	0387		33723	282		2681	14678
203	0247	0372	B	33801	206	B	2688	14681
203	0297	0365		33866	164	B	2694	14687
203	0396	0359		33990	114	B	2705	14703

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA	
0000	0490	B	32562	715	B	2578	14673	00000	2226
0010	0490		32558	697	C	2578	14675	00001	2230
0020	0491		32553	713		2577	14677	0045	2236
0030	0489		32552	718	B	2577	14678	0067	2235
0050	0488		32554	720		2577	14681	0112	2235
0075	0477		32564	718	C	2579	14680	0168	2218
0100	0452		32649	700		2589	14675	0223	2130
0125	0419		3294	610	C	2616	14669	0274	1877
0150	0398		3345	426	B	2658	14671	0316	1480
0175	0397		33603	355		2670	14677	0352	1364
0200	0386		33729	278		2681	14678	0385	1261
0225	0378		3378	231	B	2686	14680	0416	1215
0250	0371	B	33805	203	B	2689	14681	0446	1193
0300	0363	B	33873	155	B	2695	14687	0505	1137
0400	0359		33994	114	B	2705	14704	0615	1056

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 1222 AIR T 05.1 VIS 5  
 CONS. NO 009 MONTH 3 MXSAMPE 25 WAVES 2 3264 WET B 04.8 STN 109  
 LAT 49-58 N DAY 18 NO.DPTF 22 WND-DIR 120 WW-CODE 60  
 LON 144-55 W HR 18.9 W-COLOR 10 WND-SPD 13 CLD-TPE 9  
 MARSQ 159 C/I 1802 W-TRNSP 15 BARO 1008.8 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	
189	0000	C50	B	32533	728 C	2574	14677
189	0010	0495		32561	731	2577	14677
189	0020	0496		32564	728 C	2577	14679
189	0030	0494		32558	728 C	2577	14680
189	0050	0493		32566	731	2578	14683
189	0075	0480		32581	722	2580	14682
189	0100	0424		32643	718 C	2591	14663
189	0125	0417		33029	593	2623	14670
189	0150	C391		33470	412	2660	14669
189	0175	0389 B		33644	339 C	2674	14674
189	0200	C377		33727	269 C	2682	14675
189	0250	0369		33852	195 B	2693	14681
189	0299	C360		33898	133	2697	14686
189	0399	0354		34016	101	2707	14702
189	0499	C350		34121	080	2716	14718
189	0599	0337		34207	078 C	2724	14730
202	0800	0306		34303	055 B	2735	14751
202	1000	0282		34397	063	2744	14776
202	1200	C257		34445	066 B	2750	14799
202	1500	C227		34507	086 B	2758	14837
202	2000	C192		34579	142	2766	14908
202	2500	0171		34622	212	2771	14985

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0500 B	32533	728 C	2574	14677	0000	00000	2258
0010	0495	32561	731	2577	14677	0023	00001	2233
0020	0496	32564	728 C	2577	14679	0045	00005	2233
0030	0494	32558	728 C	2577	14680	0068	00010	2236
0050	0493	32566	731	2578	14683	0113	00029	2231
0075	0480	32581	722	2580	14682	0168	00065	2208
0100	0424	32643	718 C	2591	14663	0223	00113	2106
0125	0417	33029	593	2623	14670	0272	00170	1811
0150	0391	33470	412	2660	14669	0313	00227	1456
0175	0389 B	33644	339 C	2674	14674	0348	00285	1325
0200	0377	33727	269 C	2682	14675	0381	00348	1253
0225	0372	33798	226 C	2688	14677	0412	00415	1197
0250	0369	33852	195 B	2693	14681	0441	00487	1155
0300	0360	33899	132	2697	14686	0498	00649	1115

DEPTH	T F M P	S A L	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0400	0354	34017	1C1	2707	14702	0607	01035	1028
0500	0350	34122	080	2716	14718	0707	01496	0953
0600	0337	34208	078 C	2724	14730	0799	02018	0882
0700	0321	3426 B	066 B	2730	14741	0886	02596	0833
0800	0306	34303	055 B	2735	14751	0968	03229	0793
1000	0282	34397	063	2744	14776	1120	04629	0710
1200	0257	34445	066 B	2750	14799	1259	06194	0659
1500	0227	34507	086 B	2758	14837	1449	08831	0595
2000	0192	34579	142	2766	14908	1733	13904	0522
2500	0171	34622	212	2771	14985	1989	19823	0483

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 00X0 AIR T 04.3 VIS 7  
 CONS. NO 010 MONTH 3 MXSAMPE 42 WAVES 2 2752 WET B 02.8 STN 110  
 LAT 49-56 N DAY 22 NO.DPTH 26 WND-DIR CALM HW-CCDE 03  
 LON 144-54 W HR 19.5 W-COLOR 10 WND-SPD 00 CLD-TPE 6  
 MARSQ 159 C/I 1802 W-TRNSP 20 BARO 1006.8 CLD-AMT 6 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND		
195	0000	054	B	32552	727	C	2571	14694
195	0010	0494		32543	721		2576	14677
195	0020	0495		32544	728	C	2576	14679
195	0030	0493		32546	728	C	2576	14679
195	0050	0491		32542	731		2576	14682
195	0075	0478		32565	721		2579	14681
195	0100	0425		32878	640		2610	14667
195	0125	0401		33315	476	B	2647	14667
195	0150	0391		33556	376	B	2667	14670
195	0175	0390	B	33681	308	C	2677	14675
195	0200	0382	B	33731	271		2682	14677
195	0250	0368		33806	195	B	2689	14680
195	0300	0361		33882	137	C	2696	14686
195	0400	0355		34001	097	C	2706	14702
195	0500	0351		34118	077	C	2716	14718
195	0600	0337		34199	070		2723	14730
226	0800	0305		34304	057	C	2735	14751
226	1000	0282	C	34387	058	C	2743	14776
226	1200	0257		34449	058	C	2751	14799
226	1500	0227		34509	081		2758	14837
226	2000	0191		34586	141		2767	14908
226	2500	017C		34626	205	B	2772	14985
226	3000	0157		34654	267	C	2775	15066
226	3500	0151	B	34671	301		2777	15151
226	4000	0151		34674	322		2777	15239
226	4200	015C	B					

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND	DELTA-D	POT.EN	SVA		
0000	0540	B	32552	727	C	2571	14694	0000	00000	2287
0010	0494		32543	721		2576	14677	0023	00001	2245
0020	0495		32544	728	C	2576	14679	0045	00005	2247
0030	0493		32546	728	C	2576	14679	0068	00010	2244
0050	0491		32542	731		2576	14682	0113	00029	2247
0075	0478		32565	721		2579	14681	0169	00065	2218
0100	0425		32878	640		2610	14667	0222	00111	1931
0125	0401		33315	476	B	2647	14667	0266	00162	1580
0150	0391		33556	376	B	2667	14670	0303	00214	1391
0175	0390	B	33681	308	C	2677	14675	0337	00271	1298

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA	
0200	0382	B	33731	271	2682	14677	0369	00333	1255
0225	0374	B	33771	232	2686	14678	0401	00401	1220
0250	0368		33806	195 B	2689	14680	0431	00475	1189
0300	0361		33882	137 C	2696	14686	0489	00639	1129
0400	0355		34001	097 C	2706	14702	0599	01031	1041
0500	0351		34118	077 C	2716	14718	0700	01495	0957
0600	0337		34199	070	2723	14730	0793	02020	0889
0700	0321		34258	063 B	2730	14740	0880	02601	0835
0800	0305		34304	057 C	2735	14751	0962	03235	0791
1000	0282	C	34387	058 C	2743	14776	1115	04641	0717
1200	0257		34449	058 C	2751	14799	1254	06209	0656
1500	0227		34509	081	2758	14837	1444	08837	0593
2000	0191		34586	141	2767	14908	1726	13872	0516
2500	0170		34626	205 B	2772	14985	1979	19730	0478
3000	0157		34654	267 C	2775	15066	2217	26498	0456
3500	0151	B	34671	301	2777	15151	2449	34293	0450
4000	0151		34674	322	2777	15239	2683	43378	0461

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 3324 AIR T 03.8 VIS 7  
 CONS. NO 011 MONTH 3 MXSAMPD 04 WAVES 2 2945 WET B 00.8 STN 111  
 LAT 49-39 N DAY 29 NC.DPTH 14 WND-DIR 330 WND-CODE 60  
 LON 145-13 W HR 01.9 W-COLOR 10 WND-SPD 12 CLD-TPE 2  
 MARSD SQ 159 C/I 1802 W-TRNSP 15 BARO 1024.7 CLD-ANT 4 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
019	0000	049 B	32587		2580	14674
019	0010	0493	32572	727 C	2578	14677
019	0020	0494 B	32572	728 C	2578	14679
019	0029	0495	32570	731	2578	14680
019	0049	0493	32570	729 C	2578	14683
019	0073	0490	32569	728 C	2578	14686
019	0098	0454	32698	692	2592	14676
019	0125	0419	33112	571	2629	14672
019	0150	0393	33384	448 C	2653	14668
019	0175	0388	33567	359 C	2668	14673
019	0200	0383 L	33693	295 B	2679	14677
019	0250	0372 B	33793	215 B	2688	14682
019	0300	0365	33889	150	2696	14688
019	0400	0355	34012	102	2707	14702

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0490 B	32587	724 G	2580	14674	0000	00000	2207
0010	0493	32572	727 C	2578	14677	0022	00001	2223
0020	0494 B	32572	728 C	2578	14679	0045	00005	2225
0030	0495	32570	731	2578	14681	0067	00010	2228
0050	0493	32569	729 C	2578	14683	0112	00029	2229
0075	0488	32572	727 C	2579	14685	0168	00065	2222
0100	0451	3273 B	685	2595	14676	0222	00113	2071
0125	0419	33112	571	2629	14672	0270	00168	1751
0150	0393	33384	448 C	2653	14668	0311	00226	1523
0175	0388	33567	359 C	2668	14673	0348	00287	1382
0200	0383 B	33693	295 B	2679	14677	0382	00351	1285
0225	0377 B	3376 C	250 B	2684	14679	0413	00420	1234
0250	0372 B	33793	215 B	2688	14682	0444	00495	1202
0300	0365	33889	150	2696	14688	0503	00661	1127
0400	0355	34012	102	2707	14702	0612	01050	1033

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 1352 AIR T 04.6 VIS 7  
 CONS. NO 012 MONTH 3 MXSAMPD 42 WAVES 2 3044 WET B 00.9 STN 112  
 LAT 50-02 N DAY 30 NO.DPTH 26 WND-DIR 130 WWD-CODE 02  
 LON 144-55 W HR 00.7 W-COLOR 10 WND-SPD 15 CLD-TPE 6  
 MARSD SQ 195 C/I 18C2 W-TRNSP BARO 1020.8 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND		
020	0000	050	B	32583	726	B	2578	14678
020	0010	0496		32568	736	B	2578	14678
020	0020	0497		32576	729	C	2578	14680
020	0030	0495		32568	733		2578	14681
020	0050	0494		32568	732		2578	14683
020	0075	0492		32566	731		2578	14687
020	0100	0460		32641	705	B	2587	14678
020	0125	0418		32975	610		2618	14669
020	0150	0401		33398	450		2653	14672
020	0175	0391		33619	343		2672	14675
020	0200	0378	B	33700	293		2680	14675
020	0250	0365	B	33798	205	B	2689	14679
020	0300	0362		33892	146	B	2697	14687
020	0400	0356		34012	111		2707	14702
020	0500	0351		34123	086	B	2716	14718
020	0600	0339		34202	071		2723	14731
007	0796	0309		34313	056	B	2735	14752
007	0995	0287	C	34374	054	B	2742	14777
007	1194	0262		34440	065	B	2749	14800
007	1493	0235		34509	082		2757	14840
007	1991	0196		34580	140		2766	14908
007	2489	0174		34628	207	C	2772	14984
007	2987	0158		34654	262		2775	15064
007	3485	0154	B	34672	299	C	2777	15149
007	3983	0150		34676	320		2777	15235
007	4182	0151						

## I N T E R P C L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA		
0000	0500	B	32583	726	B	2578	14678	0000	00000	2221
0010	0496		32568	736	B	2578	14678	0022	00001	2229
0020	0497		32576	729	C	2578	14680	0045	00005	2225
0030	0495		32568	733		2578	14681	0067	00010	2230
0050	0494		32568	732		2578	14683	0112	00029	2230
0075	0492		32566	731		2578	14687	0168	00065	2232
0100	0460		32641	705	B	2587	14678	0223	00114	2144
0125	0418		32975	610		2618	14669	0274	00172	1853
0150	0401		33398	450		2653	14672	0316	00231	1520
0175	0391		33619	343		2672	14675	0352	00291	1346



C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 2155 AIR T 05.3 VIS 7  
 CONS. NO 013 MONTH 4 MXSAMPD 04 WAVES 2 2369 WET B 04.7 STN 113  
 LAT 50-02 N DAY 02 NO.DPTH 14 WND-DIR 210 WND-CCDE 03  
 LON 144-58 W HR 18.9 W-COLOR 10 WND-SPC 13 CLD-TPE 6  
 MARSD SQ 195 C/I 1802 W-TRNSP 14 BARO 1000.8 CLD-AMT 4 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
189	0000	050 B	32548	731	2576	14677
189	0010	0489	32578	733	2579	14675
189	0020	0490	32574	733	2579	14677
189	0030	0487	32575	734 B	2579	14677
189	0050	0487	32572	733	2579	14681
189	0075	0484	32569	733	2579	14683
189	0100	0416	32651	718 C	2593	14660
189	0125	0408	33102	562	2629	14667
189	0150	0399	33395	453	2653	14671
189	0175	0395	33625	350	2672	14677
189	0200	0386	33710	301	2680	14678
189	0250	0371 B	33793	226 B	2688	14681
189	0300	0364	33887	148 C	2696	14688
189	0400	0357	34026	101	2708	14703

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0500 B	32548	731	2576	14677	0000	00000	2247
0010	0489	32578	733	2579	14675	0022	00001	2214
0020	0490	32574	733	2579	14677	0045	00005	2219
0030	0487	32575	734 B	2579	14677	0067	00010	2216
0050	0487	32572	733	2579	14681	0112	00029	2220
0075	0484	32569	733	2579	14683	0168	00064	2221
0100	0416	32651	718 C	2593	14660	0222	00113	2092
0125	0408	33102	562	2629	14667	0270	00168	1747
0150	0399	33395	453	2653	14671	0311	00226	1520
0175	0395	33625	350	2672	14677	0347	00286	1346
0200	0386	33710	301	2680	14678	0381	00349	1275
0225	0378	3376 B	262	2684	14679	0412	00418	1232
0250	0371 B	33793	226 B	2688	14681	0443	00493	1201
0300	0364	33887	148 C	2696	14688	0502	00658	1128
0400	0357	34026	101	2708	14703	0610	01046	1024

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 2833 AIR T 05.3 VIS 7  
 CONS. NO 014 MONTH 4 MXSAMPB 20 WAVES 2 2744 WET B 03.2 STN 114  
 LAT 49-58 N DAY 04 NO.DPTH 21 WND-DIR 280 WW-CODE 81  
 LON 145-04 W HR 20.0 W-COLOR 10 WND-SPD 10 CLD-TPF 3  
 MARSD SQ 159 C/I 1802 W-TRNSP 11 BARO 1015.0 CLD-AMT 4 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND		
200	0000	050	B	32554	734	B	2576	14678
200	0010	0496		32572	727	C	2578	14678
200	0020	0497		32576	726	B	2578	14680
200	0030	0494		32584	731		2579	14680
200	0040	0494		32605	731		2581	14684
200	0074	0492		32612	729	C	2582	14687
200	0095	0482		32593	722		2581	14687
200	0123	0414		33028	589	C	2623	14668
200	0148	0392		33425	435	B	2656	14668
200	0173	0387	B	33619	344	B	2672	14673
200	0197	0387	B	33711	292		2680	14678
200	0247	0371		33818	202		2690	14681
200	0297	0366			155	B		
200	0398	0354			098	C		
209	0500	0349			084	B		
209	0600	0338			085	B		
209	0800	0308			057	C		
209	1000	0282			070			
209	1200	0255			066	B		
209	1500	0228			081			
209	2000	0192			142			

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA		
0000	0500	B	32554	734	B	2576	14678	0000	00000	2243
0010	0496		32572	727	C	2578	14678	0022	00001	2226
0020	0497		32576	726	B	2578	14680	0045	00005	2225
0030	0494		32584	731		2579	14680	0067	00010	2216
0050	0494		32606	731		2581	14684	0112	00029	2202
0075	0492		32607	730	C	2581	14687	0167	00064	2201
0100	0479		32607	718		2583	14686	0222	00114	2190
0125	0411		33065	576	C	2626	14668	0272	00171	1778
0150	0391		33446	426	B	2658	14669	0313	00228	1474
0175	0387	B	33629	339	B	2673	14673	0349	00287	1335
0200	0386	B	3374	286		2682	14679	0381	00349	1253
0225	0379	B	3381	237	C	2688	14680	0412	00417	1198
0250	0371			198						
0300	0366			153	B					
0400	0354			097	C					

DEPTH	TEMP	SAL	OXYGEN	SCMT	SOUND	DELTA-D	POT. EN	SVA
0500	0349		084 B					
0600	0338		085 B					
0700	0323		071 B					
0800	0308		057 C					
1000	0282		070					
1200	0255		066 B					
1500	0228		081					
2000	0192		142					

C-REF-NO 003 YR 1968 DEPTH C 4206 WAVES 1 2221 AIR T 06.5 VIS 4  
 CONS. NO 015 MONTH 4 MXSAMPE 04 WAVES 2 2754 WET B 06.3 STN 115  
 LAT 50-02 N DAY 06 NO.DPTH 14 WND-DIR 220 WND-CODE 10  
 LON 144-59 W HR 18.8 W-COLOR 10 WND-SPD 11 CLD-TPE  
 MARSD SQ 195 C/I 1802 W-TRNSP 20 BARO 1020.8 CLD-AMT 9 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND	
188	000C	050	B	32562	738 C	2577	14678
188	001C	0486		32560	735 B	2578	14673
188	002C	0486		32556	737 C	2578	14675
188	003C	0484		32555	738 C	2578	14676
188	005C	0484		32554	736 B	2578	14679
188	0075	0482		32555	738 C	2578	14682
188	010C	0455		32581	730	2583	14676
188	0125	0408		32968	606 B	2619	14665
188	015C	040C		33316	474 B	2647	14671
188	0175	039C		33565	361	2668	14674
188	020C	0381	B	33681	263	2678	14676
188	025C	0371					
188	030C	0363		33877	144 B	2695	14687
188	0400	0353		34014	094 B	2707	14701

## I N T E R P C L A T E D

DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	050C B	32562	738 C	2577	14678	0000	00000	2237
0010	0486	32560	735 B	2578	14673	0022	00001	2224
0020	0486	32556	737 C	2578	14675	0045	00005	2228
0030	0484	32555	738 C	2578	14676	0067	00010	2228
0050	0484	32554	736 B	2578	14679	0112	00029	2230
0075	0482	32555	738 C	2578	14682	0168	00065	2229
0100	0455	32581	730	2583	14676	0224	00115	2184
0125	0408	32968	606 B	2619	14665	0275	00173	1848
0150	0400	33316	474 B	2647	14671	0318	00233	1581
0175	039C	33565	361	2668	14674	0355	00295	1386
0200	0381	33681	263	2678	14676	0389	00360	1292
0225	0375	3375	D 210 D	2684	14678	0421	00429	1234
0250	0371	3381	E 172 E	2689	14681	0451	00504	1189
0300	0363	33877	144 B	2695	14687	0510	00669	1134
0400	0353	34014	094 B	2707	14701	0619	01058	1029

C-REF-NO 003 YR 1968 DEPTH C 3909 WAVES 1 2433 AIR T 06.3 VIS 6  
 CONS. NO 016 MONTH 4 MXSAMPD 04 WAVES 2 2564 WET B 05.8 STN 012  
 LAT 49-49 N DAY C8 NO.DPTH 14 WND-DIR 240 W-W-CCDE 45  
 LON 142-40 W HR 15.6 W-COLOR 10 WND-SPD 08 CLD-TPF 7  
 MARSD SQ 159 C/I 18C2 W-TRNSP 13 BARO 1015.0 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SCUND
156	000C	055	8	32550	2570	14698
156	001C	0547		32555	2571	14699
156	0020	0548		32554	2571	14701
156	003C	0546		32556	2571	14701
156	005C	0534		32568	2573	14700
156	0074	0526		32565	2574	14701
156	0099	0518		32586	2577	14702
156	0124	0459		33151	2628	14689
156	0149	0469		33605	2663	14703
156	0174	0456	8	33714	2673	14703
156	0198	0435	8	33760	2679	14699
156	0248	0404		33821	2687	14695
156	0298	0391		33889	2693	14699
156	0395	0383		34024	2705	14713

## I N T E R P C L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0550	8	32550	2570	14698	0000	00000	2300
0010	0547		32555	2571	14699	0023	00001	2294
0020	0548		32554	2571	14701	0046	00005	2296
0030	0546		32556	2571	14701	0069	00011	2294
0050	0534		32568	2573	14700	0115	00029	2273
0075	0526		32560	2574	14701	0172	00066	2273
0100	0515	8	326C	2578	14701	0229	00117	2230
0125	0459		33174	2630	14689	0279	00174	1745
0150	0469		33613	2663	14703	0319	00230	1429
0175	0455	8	33717	2673	14703	0354	00288	1339
0200	0433	8	33763	2679	14699	0387	00351	1284
0225	0416		33795	2683	14696	0419	00421	1243
0250	0403		33824	2687	14695	0450	00496	1211
0300	0388		33890	2694	14698	0509	00664	1149
0400	0384		34031	2705	14715	0620	01060	1048

C-REF-NO 003 YR 1968 DEPTH C 3880 WAVES 1 3152 AIR T 05.8 VIS 6  
 CONS. NO 017 MONTH 4 MXSAMPD 04 WAVES 2 2752 WET B 05.2 STN 011  
 LAT 49-41 N DAY 08 NO.DPTH 14 WND-DIR 310 HW-CODE 10  
 LON 140-40 W HR 22.9 W-COLOR 10 WND-SPD 09 CLD-TPE 7  
 MARSID SQ 159 C/I 1802 W-TRNSP 20 BARO 1009.0 CLD-AMT 8 HW

## O B S E R V E D

CMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
229	000C	C60	B	32563	2565	14719
229	001C	C577	E	32543	2566	14711
229	002C	C575		32542	2567	14711
229	003C	C569		32548	2568	14711
229	005C	C566		32547	2568	14713
229	0075	C562		32563	2570	14715
229	010C	C520		32639	2581	14703
229	0125	C483		33292	2636	14701
229	0150	C472		33632	2665	14705
229	0175	C451		33632	2667	14700
229	020C	C424	B	33757	2680	14695
229	025C	C392		33800	2686	14690
229	030C	C379		33902	2696	14694
229	040C	C379		34042	2707	14713

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	C600	B	32563	2565	14719	0000	00000	2347
0010	C577	E	32543	2566	14711	0024	00001	2336
0020	C575		32542	2567	14711	0047	00005	2336
0030	C569		32548	2568	14711	0071	00011	2325
0050	C566		32547	2568	14713	0117	00030	2325
0075	C562		32563	2570	14715	0176	00067	2311
0100	C520		32639	2581	14703	0233	00118	2209
0125	C483		33292	2636	14701	0282	00174	1682
0150	C472		33632	2665	14705	0321	00229	1418
0175	C451		33632	2667	14700	0356	00288	1398
0200	C424	B	33757	2680	14695	0390	00353	1278
0225	C405	B	3379 E	2684	14691	0421	00422	1234
0250	C392		33800	2686	14690	0452	00497	1217
0300	C379		33902	2696	14694	0512	00664	1132
0400	C379		34042	2707	14713	0621	01054	1035

C-REF-NO 003 YR 1968 DEPTH C 3889 WAVES 1 3352 AIR T 06.2 VIS 6  
 CONS. NO 018 MONTH 4 MXSAMPC 04 WAVES 2 66 WET B 05.6 STN 010  
 LAT 49-34 N DAY 09 NO.DPTH 14 WND-DIR 330 WND-CCDE 02  
 LON 138-40 W HR 03.8 W-COLOR WND-SPD 07 CLD-TPE 7  
 MARSD SQ 158 C/I 1802 W-TRNSP BARO 1009.2 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
038	000C	061	B	32559	2564	14723
038	001C	0608	B	32552	2563	14723
038	002C	0607		32549	2563	14724
038	003C	060C		32550	2564	14723
038	0049	0592		32568	2567	14723
038	0074	0588		32562	2567	14726
038	0098	0588		32570	2567	14730
038	0123	0541		32773	2589	14717
038	0148	0487		33385	2643	14708
038	0173	0479		33593	2661	14711
038	0197	0462	B	33705	2671	14709
038	0246	0435		33789	2681	14707
038	0296	0399		33830	2688	14701
038	0394	0372		33938	2699	14707

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0610	B	32559	2564	14723	0000	00000	2361
0010	0608	B	32552	2563	14723	0024	00001	2365
0020	0607		32549	2563	14724	0048	00005	2368
0030	0600		32550	2564	14723	0071	00011	2360
0050	0592		32568	2567	14723	0119	00030	2339
0075	0588		32560	2566	14726	0178	00068	2343
0100	0585		32575	2568	14729	0236	00121	2331
0125	0536		3282	2593	14716	0292	00185	2093
0150	0486		3341	2645	14708	0339	00250	1599
0175	0478		33605	2662	14711	0377	00313	1447
0200	0460	B	33714	2672	14709	0412	00381	1349
0225	0446		3377	2678	14708	0445	00454	1296
0250	0432		33793	2682	14707	0478	00532	1264
0300	0403	B	3385	2689	14704	0540	00707	1197
0400	0371		33942	2700	14708	0656	01121	1101

C-REF-NO 003 YR 1968 DEPTH C 3774 WAVES 1 3152 AIR T 06.1 VIS 7  
 CONS. NO 019 MONTH 4 MXSAMPD 04 WAVES 2 XX WET B 05.2 STN 009  
 LAT 49-26 N DAY 09 NO.DPTH 14 WND-DIR 310 W-W-CCDE 02  
 LON 136-40 W HR 09.5 W-COLOR WND-SPD 10 CLD-TPE 6  
 MARSD SQ 158 C/I 1802 W-TRNSP BAKO 1015.8 CLD-AMT 5 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND
095	000C	062	B	32552	2562	14726
095	001C	0620		32538	2561	14728
095	002C	0623		32545	2561	14731
095	003C	0621		32536	2560	14732
095	005C	0606		32553	2564	14729
095	0075	0596		32549	2565	14729
095	010C	0596		32547	2564	14733
095	0125	0537		32767	2589	14716
095	015C	0504		33312	2636	14714
095	0175	0494		33495	2651	14716
095	020C	0506 C		33744	2670	14729
095	025C	0448		33796	2680	14714
095	030C	0419		33812	2684	14710
095	040C	0370		33947	2700	14708

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	CXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0620 B	32552		2562	14726	0000	00000	2378
0010	0620	32538		2561	14728	0024	00001	2390
0020	0623	32545		2561	14731	0048	00005	2390
0030	0621	32536		2560	14732	0072	00011	2395
0050	0606	32553		2564	14729	0120	00031	2367
0075	0596	32549		2565	14729	0180	00069	2361
0100	0596	32547		2564	14733	0239	00122	2365
0125	0537	32767		2589	14716	0296	00187	2135
0150	0504	33312		2636	14714	0344	00255	1693
0175	0494	33495		2651	14716	0385	00322	1547
0200	0506 C	33744		2670	14729	0421	00393	1377
0225	0482 C	3381 H		2677	14724	0455	00467	1304
0250	0448	33796		2680	14714	0488	00546	1279
0300	0419	33812		2684	14710	0551	00725	1240
0400	0370	33947		2700	14708	0669	01145	1097

C-REF-NO 003 YR 1968 DEPTH C 3275 WAVES 1 3652 AIR T 05.5 VIS 7  
 CONS. NO 020 MONTH 4 MXSAMPD 04 WAVES 2 2552 WET B 03.8 STN 007  
 LAT 49-10 N DAY C9 NO.DPTH 14 WND-DIR 250 WND-CCDE 81  
 LON 132-40 W HR 19.3 W-COLOR 10 WND-SPD 37 CLD-TPE 7  
 MARSD SQ 158 C/I 1802 W-TRNSP 12 BARO 1022.1 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
193	0000	068	B	32537	2553	14750
193	0010	0676		32542	2554	14750
193	0020	0678		32504	2551	14752
193	0030	0674				
193	0050	0670		32512	2552	14754
193	0075	0639		32536	2558	14746
193	0100	0592		32712	2578	14734
193	0125	0677		33397	2621	14781
193	0150	0671	B	33640	2641	14786
193	0175	0652		33799	2656	14784
193	0200	0633	B	33828	2661	14781
193	0250	0576	B	33903	2674	14768
193	0300	0532		33950	2683	14759
193	0400	0451		33981	2694	14742

## I N T E R P C L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0680	B	32537	2553	14750	0000	00000	2463
0010	0676		32542	2554	14750	0025	00001	2455
0020	0678		32504	2551	14752	0050	00005	2487
0030	0674		3250 B	2550	14752	0075	00012	2490
0050	0670		32512	2552	14754	0125	00032	2475
0075	0639		32536	2558	14746	0186	00071	2422
0100	0592		32712	2578	14734	0245	00124	2237
0125	0677		33397	2621	14781	0296	00182	1834
0150	0671	B	33640	2641	14786	0340	00244	1649
0175	0652		33799	2656	14784	0380	00310	1509
0200	0633	B	33828	2661	14781	0417	00382	1467
0225	0605	B	33866	2667	14775	0453	00461	1407
0250	0576	B	33903	2674	14768	0488	00545	1346
0300	0532		33950	2683	14759	0554	00731	1264
0400	0451		33981	2694	14742	0676	01167	1158

C-REF-NO 003 YR 1968 DEPTH C 2929 WAVES 1 0052 AIR T VIS 7  
 CONS. NO 021 MONTH 4 MXSAMPD 15 WAVES 2 2573 WET B STN 006  
 LAT 49-02 N DAY 10 NO.DPTH 20 WND-DIR CALM WW-CODE 02  
 LON 130-40 W HR 01.3 W-COLOR 10 WND-SPD 14 CLD-TPE 7  
 MARSD SQ 158 C/I 1802 W-TRNSP 13 BARO 1022.0 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
013	0000	073	B	32476	2541	14769
013	0010	0745		32453	2538	14776
013	0020	0747		32469	2539	14779
013	0030	0745		32458	2538	14780
013	0045	0744		32473	2539	14783
013	0074	0727		32480	2542	14780
013	0098	0684		33026	2591	14774
013	0123	0694		33475	2625	14788
013	0148	0677		33735	2648	14789
013	0172	0652	B	33821	2658	14784
013	0197	0617	B	33975	2674	14776
013	0246	0564	B	33971	2681	14763
013	0296	0511		34007	2690	14750
013	0393	0475		33989	2692	14751
013	0485	0434		34047	2702	14750
013	0582	0411		34147	2712	14758
013	0775	0367		34267	2726	14773
013	0969	0336	C	34365	2737	14793
013	1163	0292		34431	2746	14808
013	1454	0245		34509	2756	14837

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0730	B	32476	2541	14769	0000	00000	2572
0010	0745		32453	2538	14776	0026	00001	2610
0020	0747		32469	2539	14779	0052	00005	2602
0030	0745		32458	2538	14780	0079	00012	2609
0050	0744		3247	2539	14783	0131	00034	2603
0075	0725		3250	2544	14780	0196	00075	2559
0100	0684		33068	2594	14775	0254	00127	2085
0125	0693		33502	2627	14789	0303	00182	1776
0150	0675		33744	2649	14789	0345	00242	1577
0175	0648	B	33841	2660	14783	0384	00306	1473
0200	0613	B	3398	2675	14775	0419	00373	1329
0225	0585	B	3400	2680	14769	0452	00445	1286
0250	0559	B	33974	2681	14762	0484	00524	1273
0300	0509		34007	2690	14750	0546	00699	1195
0400	0472		33991	2693	14751	0666	01128	1174
0500	0430		34062	2703	14751	0780	01652	1083

DEPTH	TEMP	P	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0600	0407		34161		2713	14759	0885	02243	0993
0700	0383		34228		2721	14767	0981	02889	0925
0800	0363		34281		2727	14775	1072	03588	0871
1000	0329	C	34377		2738	14796	1239	05122	0777
1200	0290	B	34447		2747	14813	1388	06801	0694

C-REF-NO 003 YR 1968 DEPTH C 1300 WAVES 1 2952 AIR T 07.4 VIS 7  
 CONS. NO 022 MONTH 4 MXSAMPD 03 WAVES 2 3054 WET B 05.2 STN 003  
 LAT 48-42 N DAY 10 NO.DPTH 14 WND-DIR 290 WND-CODE 02  
 LON 126-40 W HR 13.0 W-COLOR WND-SPD 12 CLD-TPE 7  
 MARSQ SQ 157 C/I 1802 W-TRNSP BARO 1019.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
130	0000	087	B	31853	2473	14815
130	0009	0880		31856	2471	14820
130	0017	0878		32113	2492	14824
130	0026	0873		32148	2495	14824
130	0043	0861		32456	2521	14827
130	0065	0847		32573	2532	14826
130	0087	0827		32763	2550	14825
130	0108	0820		33280	2592	14832
130	0130	0805		33447	2607	14832
130	0152	0734		33659	2634	14811
130	0173	0706		33797	2649	14805
130	0217	0672		33979	2667	14802
130	0261	0642		34060	2678	14798
130	0350	0569		34118	2692	14784

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0870	B	31853	2473	14815	0000	00000	3228
0010	0880		3189 C	2474	14821	0032	00002	3219
0020	0877		3214 D	2494	14824	0064	00006	3031
0030	0870		3222 E	2501	14825	0094	00014	2964
0050	0857		3251 E	2526	14827	0151	00037	2731
0075	0837		3263 D	2538	14825	0218	00080	2614
0100	0822		3308 I	2576	14829	0280	00135	2261
0125	0811		3342 D	2604	14833	0333	00196	1997
0150	0741		33640	2631	14813	0380	00262	1741
0175	0704		33808	2650	14805	0422	00331	1571
0200	0683		33923	2662	14802	0460	00405	1460
0225	0667		33999	2670	14801	0496	00483	1386
0250	0650		34046	2676	14799	0531	00566	1332
0300	0609		3413 C	2687	14792	0595	00748	1229

C-REF-NO 003	YR 1968	DEPTH C	109	WAVES 1	XX	AIR T	VIS
CONS. NO 023	MONTH 4	MXSAMPC	01	WAVES 2	XX	WET R	STN 002
LAT 48-38 N	DAY 10	NO.DPTH	7	WND-DIR		W-W-CODE	
LON 126-00 W	HR 15.8	W-COLOR	40	WND-SPD		CLD-TPE	
MARSD SQ 157	C/I 1802	W-TRNSP	08	BARO		CLD-AMT	HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
158	0000	090	B	31535	2443	14822
158	0010	0912		31497	2438	14828
158	0019	0891		31895	2473	14827
158	0029	0894		32225	2498	14834
158	0049	0865		32403	2516	14828
158	0073	0857		32682	2539	14833
158	0098	0845		32985	2565	14836

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0900	B	31535	2443	14822	0000	00000	3508
0010	0912		31497	2438	14828	0035	00002	3555
0020	0891		31934	2476	14827	0069	00007	3201
0030	0893		3224 B	2499	14834	0101	00015	2978
0050	0864		32414	2517	14828	0159	00039	2811
0075	0851	B	3270 B	2541	14831	0227	00082	2586
0100	0845		33012	2567	14837	0289	00137	2347

C-REF-NO 003 YR 1968 DEPTH C 128 WAVES 1 2841 AIR T 07.8 VIS 6  
 CONS. NO 024 MONTH 4 MXSAMPD 01 WAVES 2 3184 WET B 07.6 STN 001  
 LAT 48-33 N DAY 10 NC.DPTH 7 WND-DIR 280 W-W-CCDE 81  
 LON 125-33 W HR 18.1 W-COLOR 40 WND-SPD 06 CLD-TPE 7  
 MARSD SQ 157 C/I 1802 W-TRNSP 06 BARO 1017.8 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND
181	0000	094	8	30898	2387	14829
181	0010	0916		31260	2419	14826
181	0020	0908		32152	2490	14837
181	0030	0895		32291	2503	14835
181	0050	0891		32482	2518	14839
181	0075	0872		32800	2546	14840
181	0100	0821		33360	2598	14832

## I N T E R P O L A T E D

DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	DELTA-D	POT. EN	SVA
0000	0940	B	30898	2387	14829	0000	00000	4040
0010	0916		31260	2419	14826	0039	00002	3737
0020	0908		32152	2490	14837	0073	00007	3065
0030	0895		32291	2503	14835	0103	00015	2944
0050	0891		32482	2518	14839	0161	00038	2799
0075	0872		32800	2546	14840	0228	00081	2540
0100	0821		33360	2598	14832	0286	00132	2054

## SECTION IV

### Bathythermograms



EXPLANATION OF DATA HEADINGS IN TABLES 1 AND 2

CON No:	The consecutive BT slide number.				
LAT:	Position of platform at time of BT lowering.				
LONG:					
DATE:	Day	Day			
	Mon	Month			
	Yr	Year			
GMT:	Hrs	The Greenwich Mean Time at which the BT lowering			
	Min	was made.			
DEPTH: Metres	Depth to bottom in metres, as read from U.S. Coast and Geodetic Survey Chart 8500.				
BAR: Mbs	Barometric pressure; prefix all listed values by 10 or by 9 if a minus (-) sign is present to obtain the pressure in whole millibars.				
	eg. 02 = 1002 mbs				
	17 = 1017 mbs				
	-98 = 998 mbs				
	-86 = 986 mbs				
WW Code:	Refer to Table 7, Section II				
WIND Amt:	Wind speed in meters per second				
W-1:	Waves 1 and 2. Refer to Tables 4&5, Section II				
W-2:					
CLOUD: T	Refer to Tables 8&9, Section II				
	A				



CCGS "VANCOUVER" 02-68-003  
BATHYTHERMOGRAMS .



TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
001	49	05	131	40	24	02	68	20	45	2875									
002	49	10	132	40	25	02	68	00	00	3275	05	41	30	55	76	X	X		
003	49	25	136	40	25	02	68	11	00	3775	-98	10	19	22	47	7	8		
004	50	08	145	03	27	02	68	12	00	4221	00	10	19	22	76	7	8		
005	50	04	144	58	27	02	68	15	00	4221	00	10	14	22	77	7	8		
006	50	02	145	02	27	02	68	18	00	4221	02	44	15	21	77	7	8		
007					27	02	68	21	00	4221	02	44	09	21	76	7	5		
008	49	52	144	57	28	02	68	00	00	4221	02	42	10	23	68	7	6		
009	49	57	145	00	28	02	68	03	00	4221	03	02	10	21	60	6	3		
010	50	00	145	04	28	02	68	06	00	4221	03	28	15	22	45	7	5		
011	50	09	145	03	28	02	68	09	00	4221	04	10	19	22	57	6	2		
012	50	09	145	01	28	02	68	12	00	4221	04	10	22	22	57	6	7		
013	50	02	144	55	28	02	68	15	00	4221	00	61	29	22	56	7	8		
014	50	04	144	49	28	02	68	18	00	4221	-98	61	29	23	55	7	8		
015	50	05	144	37	28	02	68	21	00	4221	-95	61	30	23	56	7	8		
016	50	01	144	34	29	02	68	00	00	4221	-89	61	31	34	58	7	8		
017	50	02	144	43	29	02	68	03	00	4221	-87	61	19	23	56	7	8		
018	50	06	144	52	29	02	68	06	00	4221	-87	21	23	24	56	7	8		
019	50	07	145	10	29	02	68	09	00	4221	-86	10	15	23		7	8		
020	50	04	145	08	29	02	68	12	00	4221	-84	51	20	24		7	8		
021	49	59	145	08	29	02	68	15	00	4221	-83	44	18	24		7	8		
022	49	57	145	00	29	02	68	18	00	4221	-82	51	18	24	57	7	8		
023	49	55	144	56	29	02	68	21	00	4221	-82	51	14	22	55	7	8		
024	50	01	144	59	01	03	68	00	00	4221	-82	47	14	22	55	9	9		
025	50	03	145	01	01	03	68	03	00	4221	-83	51	16	22	55	7	8		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Aml	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
026	50	06	145	04	01	03	68	06	00	4221	-86	51	17	33	45	7	8		
027	50	08	145	02	01	03	68	09	00	4221	-89	61	21	34	67	7	8		
028	50	09	145	03	01	03	68	12	00	4221	-92	02	26	33	56	7	6		
029	50	03	145	05	01	03	68	15	00	4221	-94	02	24	33	66	6	8		
030	50	01	145	07	01	03	68	18	00	4221	-97	01	27	22	66	6	7		
031	49	56	145	11	01	03	68	21	00	4221	-98	03	27	23	68	4	7		
032	49	54	145	14	02	03	68	00	00	4221	-95	03	39	34	68	7	8		
033	50	05	144	58	02	03	68	12	00	4221	-89	10	18	33	59	7	8		
034	50	01	144	59	02	03	68	15	00	4221	-88	61	18	33	56	7	8		
035	49	55	145	01	02	03	68	18	00	4221	-88	10	21	22	57	7	8		
036	49	53	145	00	02	03	68	21	00	4221	-89	03	20	22	57	6	8		
037	49	50	145	01	03	03	68	00	00	4221	-89	80	22	23	68	6	8		
038	50	01	144	56	03	03	68	03	00	4221	-90	80	15	22	68	6	8		
039	49	57	144	59	03	03	68	06	00	4221	-93	10	17	24	57	6	8		
040	50	00	144	58	03	03	69	09	00	4221	-94	10	19	24		6	8		
041	50	03	145	03	03	03	68	12	00	4221	-97	10	20	24	56	6	8		
042	50	07	145	01	03	03	68	15	00	4221	-99	01	20	24	56	6	2		
043	50	07	145	00	03	03	68	18	00	4221	02	03	20	24	56	6	7		
044	50	04	144	59	03	03	68	21	00	4221	03	02	22	24	55	6	2		
045	50	00	145	01	04	03	68	00	00	4221	04	02	17	23	45	6	2		
046	50	01	144	59	04	03	68	03	00	4221	04	15	16	32	54	6	7		
047	49	57	145	02	04	03	68	06	00	4221	05	02	16	32	54	6	8		
048	49	58	144	56	04	03	68	09	00	4221	05	02	16	43	64	6	4		
049	49	58	144	53	04	05	68	12	00	4221	04	20	18	43	55	7	8		
050	49	53	144	53	04	03	68	15	00	4221	04	61	28	56	45	7	8		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
051	49	58	144	59	04	03	68	18	00	4221	04	20	28	34	46	6	8		
052	50	02	145	04	04	03	68	21	00	4221	05	01	29	23	67	6	6		
053	50	03	145	07	05	03	68	00	00	4221	04	02	24	22	65	6	6		
054	49	58	145	02	05	03	68	03	00	4221	04	02	24	22	64	6	8		
055	49	58	145	02	05	03	68	03	00	4221	04	02	24	22	64	6	8		
056	49	54	145	00	05	03	68	09	00	4221	02	02	16	22	44	6	8		
057	49	56	144	58	05	03	68	12	00	4221	-99	02	19	22		6	8		
058	50	02	144	53	05	03	68	15	00	4221	-96	02	20	22	44	6	6		
059	50	00	144	56	05	03	68	18	00	4221	-93	80	24	23	43	6	8		
060	50	00	144	56	05	03	68	21	00	4221	-89	80	31	23	43	7	8		
061	50	02	144	56	06	03	68	00	00	4221	-86	80	29	24	43	7	8		
062	50	08	145	05	06	03	68	03	00	4221	-83	80	26	35		7	8		
063	50	01	145	00	06	03	68	06	00	4221	-83	61	08	22	44	7	8		
064	50	06	145	18	07	03	08	00	00	4221	-92	02	13	33	56	6	8		
065	50	06	145	12	07	03	68	03	00	4221	-90	25	13	22	54	7	7		
066	50	00	145	07	07	03	68	06	00	4221	-90	02	14	43	56	6	8		
067	49	59	145	03	07	03	68	09	00	4221	-89	10	18	55	53	7	8		
068	49	59	145	00	07	03	68	12	00	4221	-90	02	32	55	43	6	8		
069	50	03	145	04	07	03	68	15	00	4221	-92	02	26	56	44	6	8		
070	50	01	145	13	07	03	68	18	00	4221	-94	01	23	22	65	8	3		
071	50	00	145	18	07	03	68	21	30	4221	-94	03	13	21	65	7	6		
072	49	59	145	14	08	03	68	00	00	4221	-94	80	17	22	65	7	6		
073	50	01	145	03	08	03	68	03	00	4221	-95	01	15	21	64	8	2		
074	49	59	144	59	08	03	68	06	00	4221	-96	01	15	22	67	6	8		
075	50	01	144	54	08	03	68	09	00	4221	-96	03	19	22	65	7	8		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
076	50	03	144	52	08	03	68	12	00	4221	-94	21	25	44	55	8	2		
077	50	04	144	54	08	03	68	15	00	4221	-95	01	18	33	46	8	4		
078	50	02	145	00	08	03	68	18	00	4221	-96	15	16	22	65	9	8		
079	50	03	445	01	08	03	68	21	00	4221	-97	80	15	22	65	9	8		
080	50	04	144	55	09	03	68	00	00	4221	-97	15	25	23	64	9	7		
081	50	00	144	49	09	03	68	03	00	4221	-98	02	18	22	64	9	5		
082	50	00	145	00	09	03	68	06	30	4221	00	02	15	32	44	8	2		
083	50	03	145	00	09	03	68	09	00	4221	00	02	18	23	54	8	5		
084	50	04	144	59	09	03	68	12	00	4221	02	01	24	24	55	8	3		
085	50	04	144	55	09	03	68	15	00	4221	05	02	25	24	55	8	2		
086	49	59	145	01	09	03	68	18	00	4221	07	15	17	23	54	9	3		
087	50	00	145	01	09	03	68	21	00	4221	09	02	17	23	54	9	2		
088	50	03	145	02	10	03	68	00	00	4221	10	02	17	23	54	9	2		
089	50	02	144	59	10	03	68	03	00	4221	10	02	16	22	54	8	2		
090	50	01	145	01	10	03	68	06	00	4221	09	02	10	32	44	8	2		
091	50	02	144	59	10	03	64	09	00	4221	07	02	14	32	44	8	4		
092	50	04	145	00	10	03	68	12	00	4221	01	61	30	44	54	7	8		
093	50	04	144	42	11	03	68	12	00	4221	-68	61	06	23	60	7	8		
094	50	04	144	55	11	03	68	15	00	4221	-68	61	14	23	50	7	8		
095	50	04	145	03	11	03	68	18	00	4221	-70	47	14	23	69	X	9		
096	50	03	145	07	11	03	68	21	00	4221	-72	51	16	22	56	7	8		
097	50	01	145	09	12	03	68	00	00	4221	-74	10	16	22	57	6	8		
098	50	00	145	06	12	03	68	03	00	4221	-75	02	16	22	55	6	8		
099	49	56	145	05	12	03	68	06	00	4221	-77	02	09	22	65	6	6		
100	49	56	145	02	12	03	68	09	00	4221	-79	01	09	22	54	6	3		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
101	49	53	145	05	02	03	68	12	00	4221	-83	03	17	23	54	8	7		
102	49	59	145	02	12	03	68	15	00	4221	-87	02	15	23	64	8	7		
103	49	58	145	03	12	03	68	18	00	4221	-93	02	26	24	45	9	6		
104	49	52	145	03	12	03	68	21	00	4221	-97	02	22	23	44	6	8		
105	49	57	145	10	13	03	68	00	00	4221	-99	02	25	34	44	6	8		
106	49	52	145	12	13	03	68	03	00	4221	01	02	24	34	43	7	7		
107	49	58	145	08	13	03	68	06	30	4221	02	02	26	34	33	6	6		
108	49	57	145	08	13	03	68	09	00	4221	04	02	19	44	32	6	6		
109	49	55	145	00	13	03	68	12	00	4221	03	01	23	45	32	8	2		
110	49	54	149	53	13	03	68	15	00	4221	09	02	26	45	32	6	6		
111	50	00	145	01	13	03	68	18	00	4221	04	02	25	24	64	6	6		
112	49	57	145	06	13	03	68	21	00	4221	05	01	21	24	66	6	3		
113	49	57	145	09	14	03	68	00	00	4221	06	03	12	22	64	6	3		
114	49	55	145	13	14	03	68	03	00	4221	06	03	17	22	64	6	8		
115	50	00	145	01	14	03	68	06	00	4221	07	01	16	22	54	8	3		
116	44	59	145	04	14	03	68	09	00	4221	08	03	15	22	54	6	7		
117	50	05	145	05	14	03	68	12	00	4221	08	80	18	22	54	6	7		
118	50	00	145	02	14	03	68	15	00	4221	09	80	15	22	53	6	8		
119	50	00	145	01	14	03	68	18	00	4221	10	03	20	23	53	6	8		
120	50	00	145	00	14	03	68	21	00	4221	11	15	15	23	43	6	7		
121	50	01	144	59	15	03	68	00	00	4221	12	02	16	23	53	6	7		
122	49	54	144	57	15	03	68	03	00	4221	13	80	15	22	53	6	8		
123	49	59	144	58	15	03	68	06	00	4221	14	80	17	22	53	8	5		
124	49	58	145	02	15	03	68	09	00	4221	15	15	16	22	53	8	6		
125	50	04	145	04	15	03	68	12	00	4221	15	02	17	23	54	8	7		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
126	49	58	145	00	15	03	68	15	00	4221	16	26	10	22	53	8	5		
127	50	01	145	03	15	03	68	18	00	4221	16	15	20	32	54	6	8		
128	50	00	145	01	15	03	68	21	00	4221	16	02	17	32	54	6	7		
129	50	02	144	57	16	03	68	00	00	4221	15	02	23	32	53	6	8		
130	50	03	144	49	16	03	68	03	00	4221	15	02	22	33	52	6	8		
131	50	01	145	00	16	03	68	06	00	4221	17	02	26	43	52	6	8		
132	49	52	145	00	16	03	68	09	00	4221	17	02	28	45	32	6	7		
133	49	55	145	03	16	03	68	12	00	4221	17	02	21	45	43	6	5		
134	50	02	145	05	16	03	68	15	00	4221	17	02	24	55	43	6	7		
135	49	58	145	05	16	03	68	18	00	4221	17	02	24	55		6	5		
136	49	56	145	03	16	03	68	21	00	4221	17	60	19	55		6	6		
137	49	57	145	02	17	03	68	00	00	4221	17	02	23	55	72	6	8		
138	49	57	144	57	17	03	68	03	00	4221	16	02	21	54	72	6	8		
139	49	59	145	01	17	03	68	06	00	4221	17	03	20	32	55	6	8		
140	49	57	144	57	17	03	68	09	00	4221	17	02	22	33	55	6	8		
141	49	55	144	56	17	03	68	12	00	4221	17	01	16	22	44	6	7		
142	49	57	145	00	17	03	68	15	00	4221	16	01	15	32	44	4	6		
143	49	57	145	02	17	03	68	18	00	4221	17	02	07	21	54	6	8		
144	50	02	145	03	17	03	68	21	00	4221	16	02	06	21	54	6	8		
145	50	02	145	02	18	03	68	00	00	4221	15	02	05	20	43	6	7		
146	49	59	144	59	18	03	68	03	00	4221	15	02	10	21	52	6	8		
147	49	57	144	58	18	03	68	06	00	4221	15	02	09	21	53	6	8		
148	50	01	144	56	18	03	68	09	00	4221	15	02	09	21	63	6	8		
149	49	55	144	57	18	03	68	12	00	4221	15	80	16	22	53	8	8		
150	49	55	145	00	18	03	68	15	00	4221	14	61	19	22		7	8		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
151	49	56	144	55	18	03	68	18	00	4221	13	61	26	23	42	7	8		
152	49	57	144	54	18	03	68	21	00	4221	11	58	19	22	33	7	8		
153	50	01	144	55	19	03	68	00	00	4221	07	58	22	22	32	7	8		
154	50	02	144	57	19	03	68	03	00	4221	05	61	19	22	33	5	7		
155	50	01	145	00	19	03	68	06	00	4221	05	02	15	43	33	6	2		
156	50	02	144	59	19	03	68	09	00	4221	06	02	14	22	53	6	2		
157	50	02	145	02	19	03	68	12	00	4221	06	02	13	22	53	6	4		
158	50	01	145	04	19	03	68	15	00	4221	05	02	08	51	53	6	3		
159	50	03	145	03	19	03	68	18	00	4221	05	03	09	21	44	6	8		
160	50	04	145	02	19	03	68	21	00	4221	03	02	11	21	34	6	8		
161	50	04	145	02	20	03	68	00	00	4221	-99	61	23	32	44	7	8		
162	50	01	145	01	20	03	68	03	00	4221	-93	61	18	32	44	7	8		
163	50	03	144	47	20	03	68	12	00	4221	82	01	25	46		6	2		
164	50	08	145	13	21	03	68	00	00	4221	-74	61	21	34	69	7	8		
165	50	00	144	55	22	03	68	00	00	4221	02	87	13	33	56	8	7		
166	50	01	144	58	22	03	68	03	00	4221	03	02	15	53	46	8	6		
167	50	02	145	00	22	03	68	06	00	4221	04	02	08	43	46	6	3		
168	50	05	144	55	22	03	68	09	00	4221	04	01	10	33	56	6	1		
169	50	04	144	56	22	03	68	12	00	4221	04	02	07	22	56	6	1		
170	49	58	144	55	22	03	68	15	00	4221	05	03	07	22	55	6	3		
171	49	58	144	55	22	03	68	18	00	4221	06	03	06	21	45	6	7		
172	49	57	144	54	22	03	68	21	00	4221	07	02	03	10	44	6	7		
173	49	57	144	54	23	03	68	00	00	4221	07	02	14	21	44	3	7		
174	49	58	144	59	23	03	68	03	00	4221	08	27	08	21	45	9	7		
175	49	58	144	55	23	03	68	06	00	4221	10	02	05	21	44	6	7		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
176	49	58	144	53	23	03	68	09	00	4221	11	87	12	22	44	6	7		
177	49	58	144	53	23	03	68	12	00	4221	11	02	09	21	44	6	7		
178	50	00	144	56	23	03	68	15	00	4221	11	02	06	21	43	6	7		
179	50	00	144	57	23	03	68	18	00	4221	11	15	05	21	42	6	8		
180	50	00	145	00	24	03	68	00	00	4221	09	02	14	21	42	6	4		
181	50	00	144	55	29	03	68	03	00	4221	08	02	17	22	42	8	7		
182	50	02	144	57	24	03	68	06	00	4221	08	02	19	23	42	6	8		
183	50	03	145	01	24	03	68	09	00	4221	07	80	23	23	XX	6	8		
184	50	05	145	03	24	03	68	12	00	4221	07	02	25	24	XX	6	8		
185	50	01	145	00	24	03	68	15	00	4221	07	02	22	24	43	6	6		
186	49	59	148	00	24	03	68	18	00	4221	09	02	21	44	33	6	6		
187	50	00	145	05	24	03	68	21	00	4221	10	02	17	42	32	6	6		
188	50	01	145	05	25	03	68	00	00	4221	10	02	16	43	32	6	8		
189	50	05	145	07	25	03	68	03	00	4221	09	61	22	64	43	7	8		
190	50	02	145	05	25	03	68	06	00	4221	08	02	21	54	54	3	1		
191	50	05	145	07	25	03	68	09	00	4221	04	61	31	56	54	7	8		
192	50	02	145	10	25	03	68	15	00	4221	00	02	30	49	64	6	7		
193	50	04	145	09	25	03	68	18	00	4221	-99	02	28	43	45	6	7		
194	50	07	145	07	25	03	68	21	00	4221	-99	02	26	33	45	6	7		
195	50	03	144	56	26	03	68	03	00	4221	-97	15	34	33	45	8	7		
196	50	02	145	02	27	03	68	15	00	4221	08	15	30	35	67	8	6		
197	50	03	145	04	28	03	68	00	00	4221	14	15	23	56	45	8	4		
198					28	03	68	03	00	4221	15	02	20	46	34	8	6		
199	49	59	145	00	28	03	68	06	00	4221	16	01	19	46	34	3	2		
200	50	03	144	56	28	03	68	09	00	4221	17	68	24	46	XX	7	8		

TABLE 1

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
201	50	02	144	54	28	03	68	12	00	4221	17	01	28	46	34	8	2		
202	50	01	144	59	28	03	68	15	00	4221	20	02	29	45	64	8	5		
202	50	04	145	03	28	03	68	18	00	4221	22	02	28	33	45	8	5		
203	50	02	145	12	28	03	68	21	00	4221	24	01	25	33	45	8	3		
204	49	59	145	13	29	03	68	00	00	4221	26	03	24	33	35	8	4		
205	49	58	145	12	29	03	68	03	00	4221	27	03	24	33	45	8	6		
206	50	01	145	12	29	03	68	06	00	4221	29	02	14	34	45	8	7		
207	50	02	145	07	29	03	68	09	00	4221	30	02	16	33	45	6	8		
208	49	59	145	07	29	03	68	12	00	4221	30	02	12	22	44	6	8		
209	49	59	145	00	29	03	68	15	00	4221	30	02	10	21	44	6	8		
210	50	00	144	57	29	03	68	18	00	4221	30	02	05	21	43	6	8		
211	49	59	144	56	29	03	68	21	30	4221	28	02	13	21	42	6	8		
212	50	00	144	56	30	03	68	00	00	4221	25	02	16	21	42	6	8		
213	50	03	144	56	30	03	68	03	00	4221	22	02	26	22	42	6	8		
214	50	01	145	00	30	03	68	06	00	4221	18	02	31	35	42	6	8		
215	49	57	143	32	31	03	68	15	00	4221	17	02	26	45	68	6	8		
216	50	03	145	12	01	04	68	00	00	4221	21	01	18	22	55	6	3		
217	50	04	145	08	21	04	68	03	00	4221	20	03	21	22	45	6	7		
218	50	02	144	59	01	04	68	06	00	4221	20	25	20	34	56	6	7		
219	50	00	145	03	01	04	68	09	00	4221	19	02	30	34	55	6	8		
220	50	01	145	09	01	04	68	12	00	4221	18	02	28	34	54	6	8		
221	50	01	145	08	01	04	68	15	00	4221	17	61	32	35	54	7	8		
222	49	56	144	39	02	04	68	00	00	4221	12	02	29	23	34	7	8		
223	50	05	144	50	02	04	68	03	00	4221	09	61	31	35	43	7	8		
224	49	59	145	01	02	04	68	09	00	4221	05	10	22	35	67	7	8		

TABLE 1

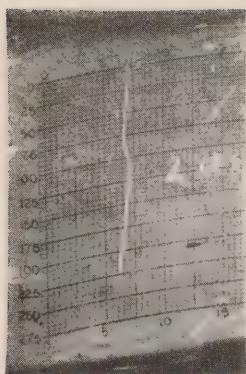
CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
225	50	02	145	03	02	04	68	12	00	4221	02	47	08	22	66	X	9		
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227	50	02	144	57	02	04	68	18	00	4221	01	02	21	55	68	3	5		
228	50	02	144	58	02	04	68	21	00	4221	01	02	27	57	45	8	4		
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230	50	06	144	45	03	04	68	03	00	4221	00	02	23	67	56	9	4		
231	50	03	144	50	03	04	68	06	00	4221	01	02	28	67	56	6	3		
232	50	04	145	00	03	04	68	09	00	4221	01	25	16	44	56	8	8		
233	50	02	145	05	03	04	68	12	00	4221	-99	61	06	21	56	5	8		
234	50	01	145	00	03	04	68	15	00	4221	-99	02	08	21	55	3	8		
235	49	56	145	02	03	04	68	18	00	4221	02	01	19	22	57	6	7		
236	49	56	145	02	04	04	68	00	00	4221	05	15	27	22	57	9	6		
237	50	01	145	09	04	04	68	03	00	4221	05	15	26	22	46	8	7		
238	49	56	145	17	04	04	68	06	00	4221	07	25	22	34	45	8	3		
239	50	00	144	57	04	04	68	09	00	4221	08	80	24	33	55	9	5		
240	50	01	144	52	04	04	68	12	00	4221	08	01	29	34	55	6	4		
241	50	02	144	57	04	04	68	15	00	4221	11	02	23	34	55	8	5		
242	49	58	145	04	04	04	68	18	00	4221	13	02	24	44	46	8	5		
243	49	58	145	04	04	04	68	21	00	4221	15	02	20	33	44	3	4		
244	50	01	145	03	05	04	68	00	00	4221	17	15	19	32	44	3	7		
245	50	03	144	58	05	04	68	03	00	4221	16	61	23	32	44	6	8		
246	50	04	144	56	05	04	68	06	00	4221	14	50	21	33	54	7	8		
247	50	12	144	55	05	04	68	09	00	4221	12	50	28	34	54	7	8		
248	50	14	144	55	05	04	68	12	00	4221	12	50	30	35	54	7	8		
249	50	06	145	01	05	04	68	15	00	4221	14	10	33	36	54	7	8		

TABLE 1

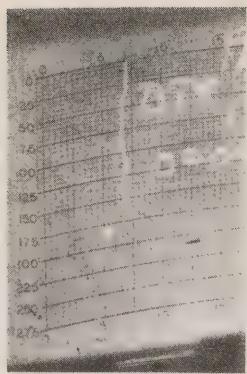
CON No	LAT		LONG		DATE			GMT		DEPTH	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min	Metres				P	H	P	H	T	A
250	50	01	145	09	05	04	68	18	00	4221	17	02	33	45	34	6	8		
251	50	00	145	18	05	04	68	21	00	4221	20	10	30	46	44	6	8		
252	49	59	145	20	06	04	68	00	00	4221	22	02	25	55	64	6	8		
253	49	57	145	06	06	04	68	03	00	4221	23	02	17	45	54	6	8		
254	50	00	140	03	06	04	68	06	00	4221	24	02	15	34	54	6	7		
255	50	00	144	58	06	04	68	09	00	4221	24	02	07	21	54	6	8		
256	50	03	144	56	06	04	68	12	00	4221	22	02	14	22	54	6	8		
257	50	05	144	56	06	04	68	15	00	4221	21	61	20	22	64	5	8		
258	50	00	145	00	06	04	68	18	00	4221	22	45	21	21	54	X	9		
259	50	03	144	59	06	04	68	21	00	4221	22	45	19	21	54	X	9		
260	50	07	144	57	07	04	68	00	00	4221	21	45	22	21	44	X	9		
261	50	04	145	00	07	04	68	03	00	4221	21	45	21	22	44	X	9		
262	50	01	145	02	07	04	68	06	00	4221	20	28	20	22	44	7	8		
263	50	07	145	01	07	04	68	09	00	4221	18	53	21	22	44	X	9		
264	50	08	145	02	07	04	68	12	00	4221	17	51	28	23	44	X	9		
265	50	00	145	05	07	04	68	15	00	4221	15	51	23	23	44	X	9		
266	50	02	145	04	07	04	68	18	00	4221	14	45	23	33	43	X	9		
267	50	06	145	03	07	04	68	21	00	4221	14	58	22	33	43	7	8		
268	50	05	145	05	08	04	68	00	00	4221	12	58	20	33	43	X	9		
269	50	00	145	01	08	04	68	03	00	4221	09	51	17	33	43	X	9		
270	49	50	143	36	08	04	68	10	54	4023	05	51	18	33	54	X	9		
271	49	49	142	40	08	04	68	15	00	3910	05	10	17	33	53	7	8		
272	49	41	140	40	08	04	68	22	45	3881	09	10	18	22	53	7	8		
273	49	34	138	40	09	04	68	03	30	3890	09	02	15	43	96	7	7		
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TABLE 1

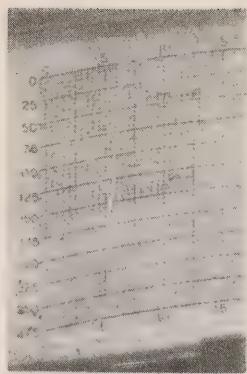
CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
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276	49	02	130	40	10	04	68	01	00	2930	22	02	28	65	75	7	8		
277	48	42	126	40	10	04	68	12	30	1300	19	02	24	53	56	7	8		
278	48	38	126	00	10	04	68	15	30	0110	19	02	15	53	56	7	8		
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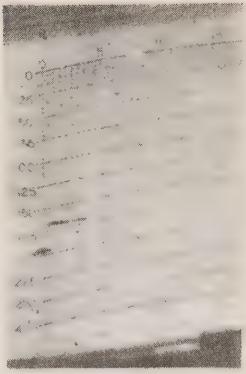
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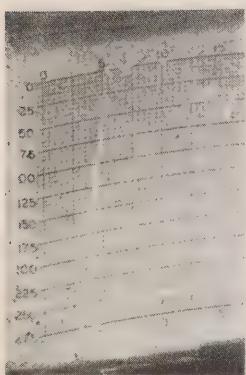
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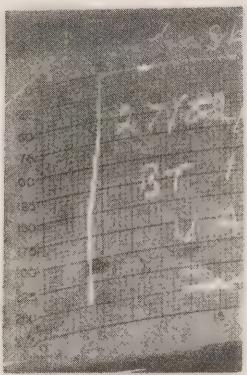
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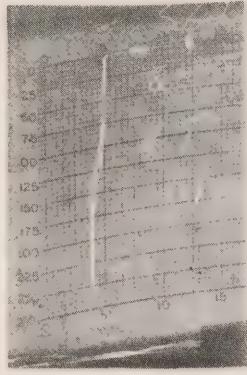
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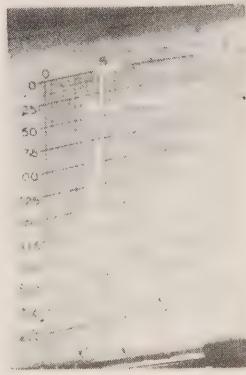
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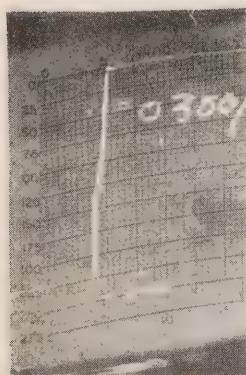
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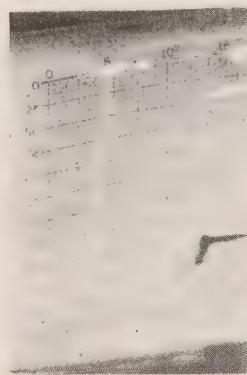
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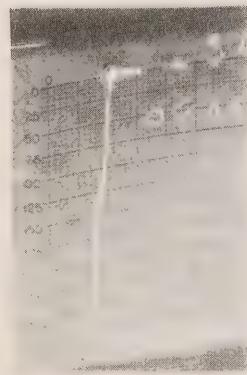
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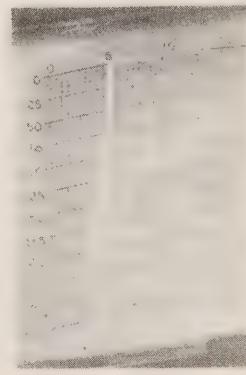
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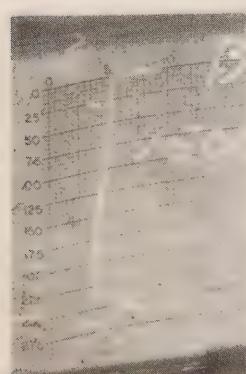
10



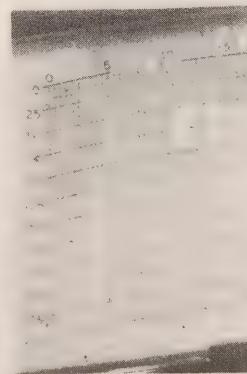
11



12



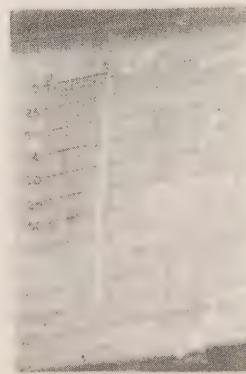
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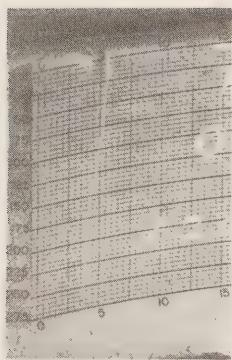
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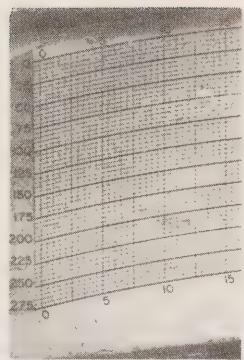
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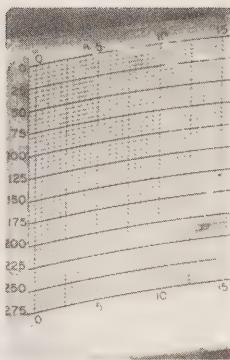




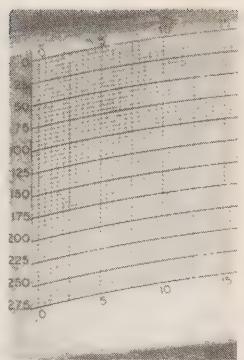
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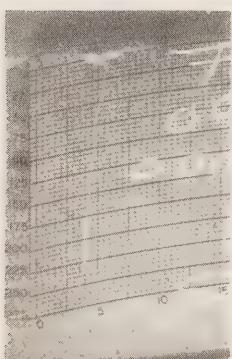
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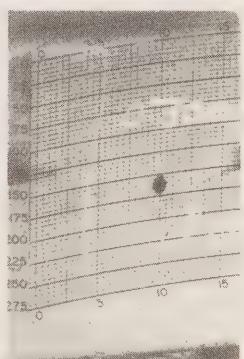
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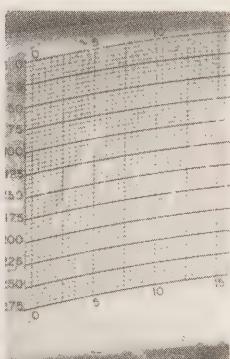
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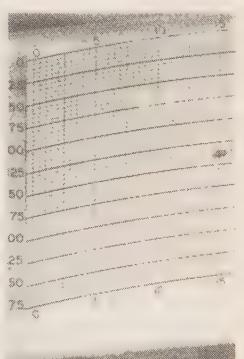
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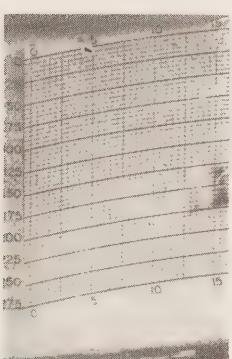
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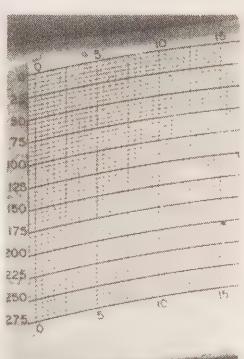
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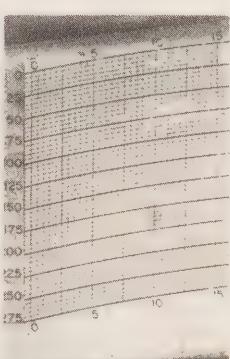
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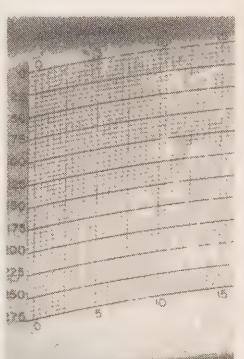
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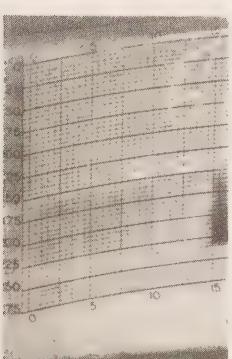
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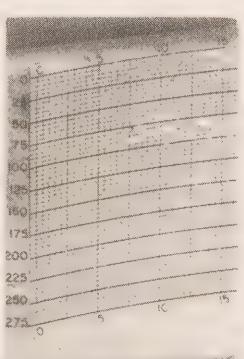
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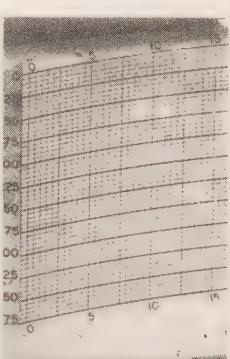
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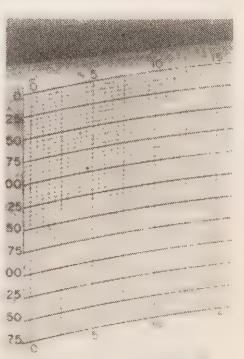
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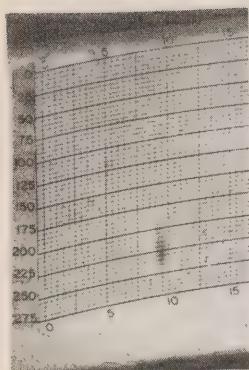
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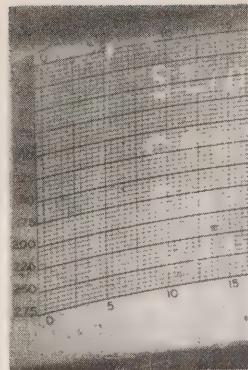
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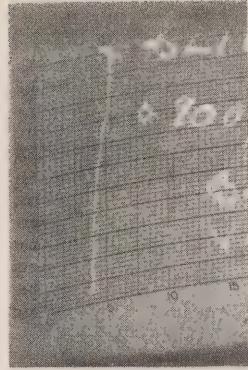
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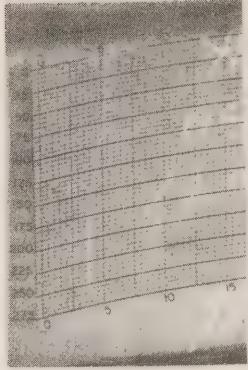
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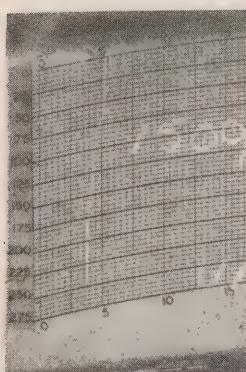
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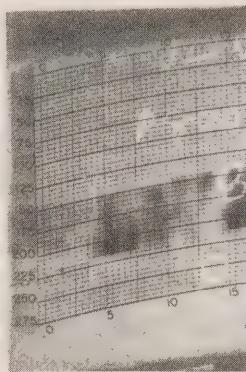
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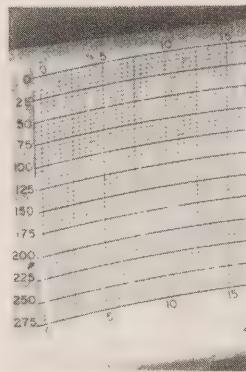
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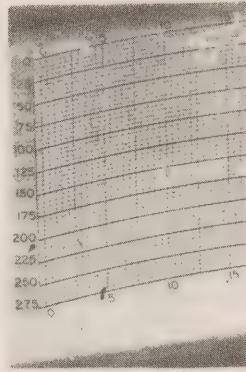
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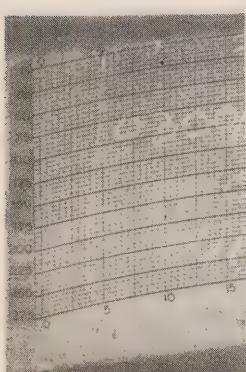
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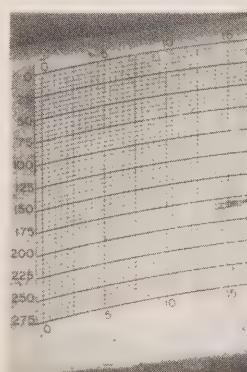
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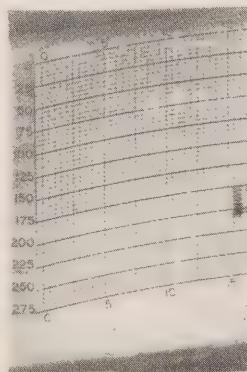
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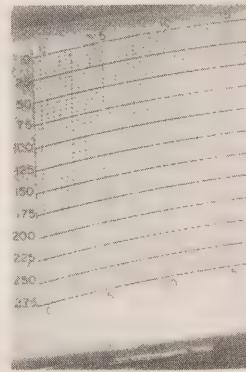
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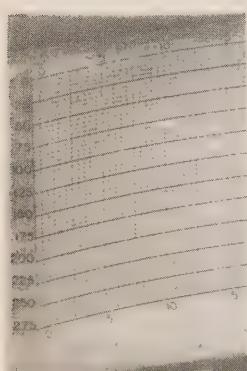
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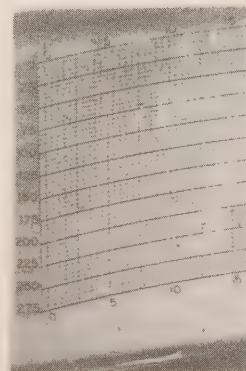
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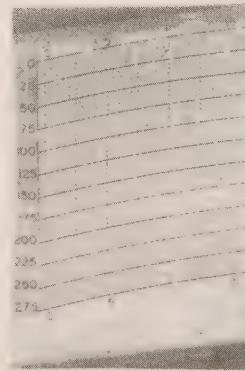
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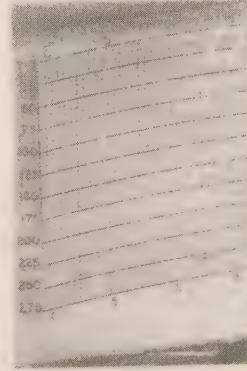
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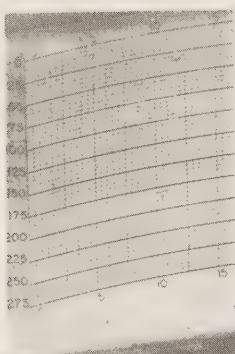
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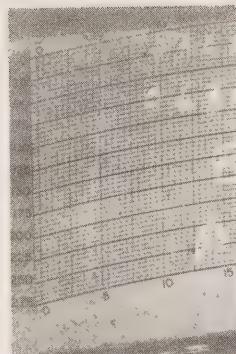
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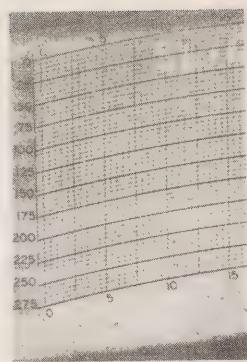
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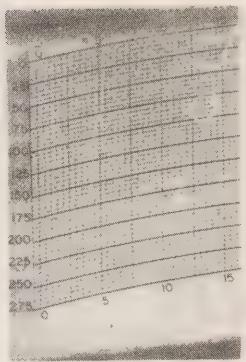
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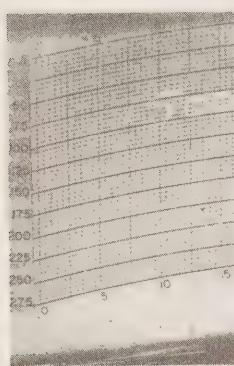
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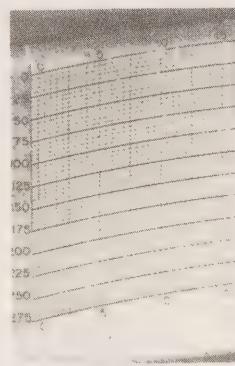
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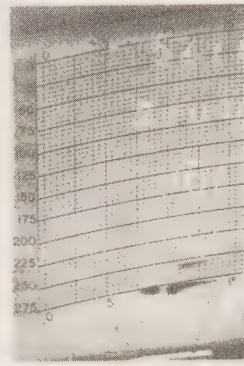
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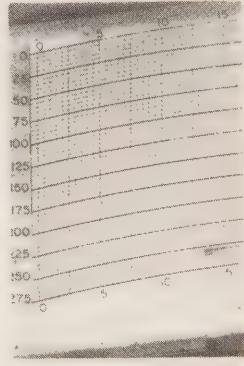
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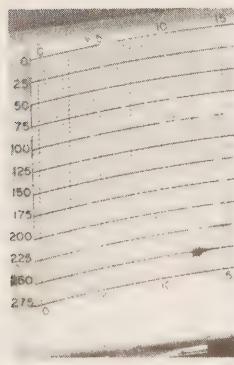
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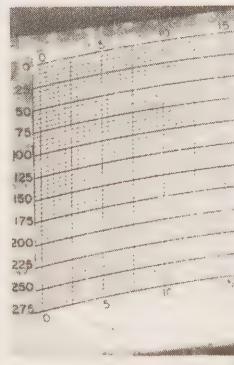
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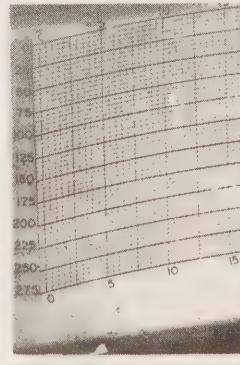
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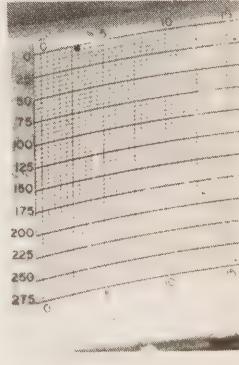
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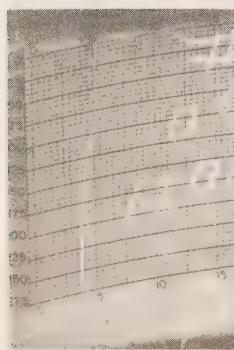
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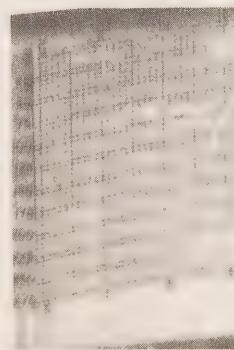
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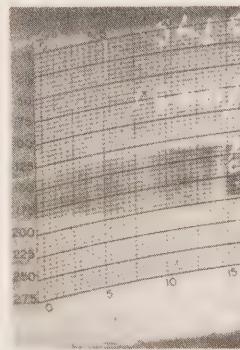
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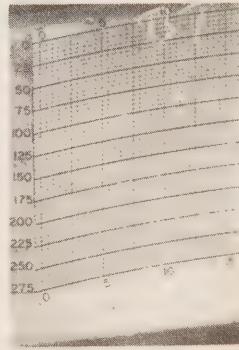
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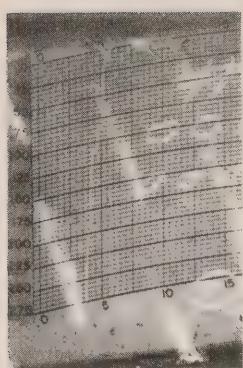
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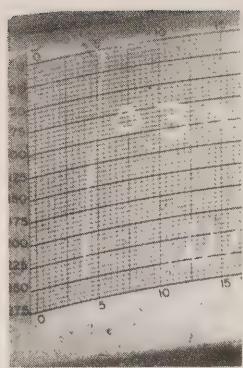
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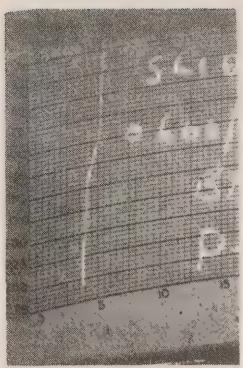
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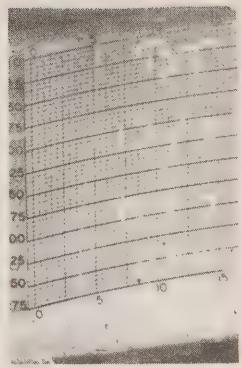
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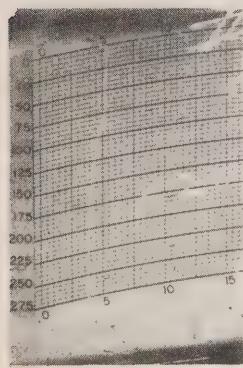
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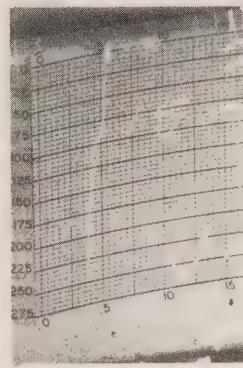
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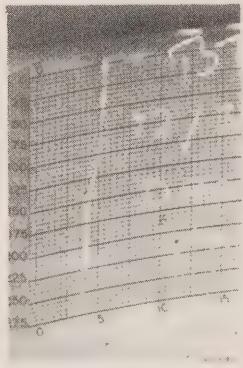
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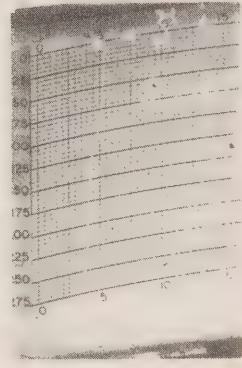
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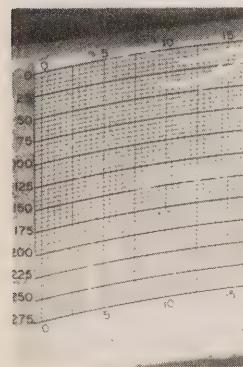
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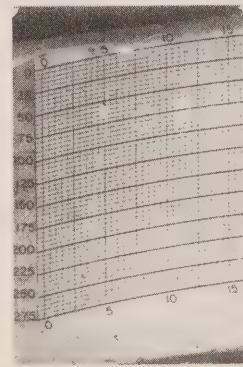
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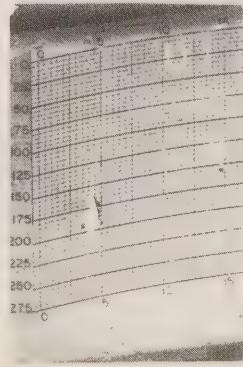
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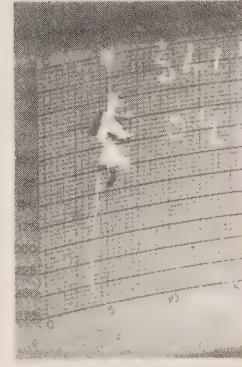
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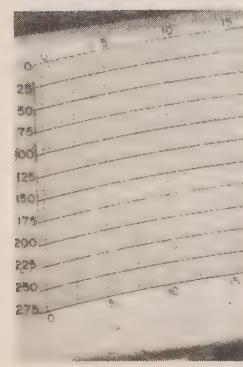
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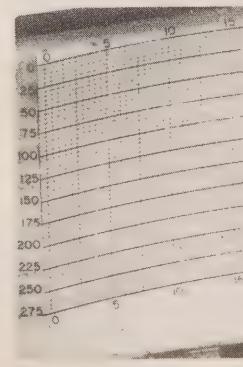
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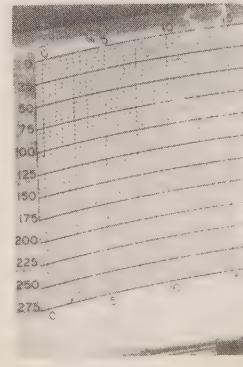
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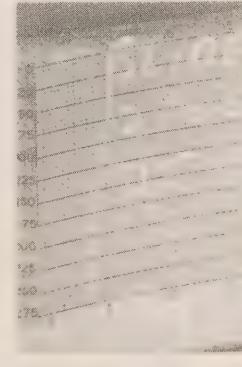
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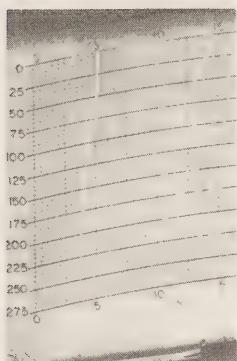
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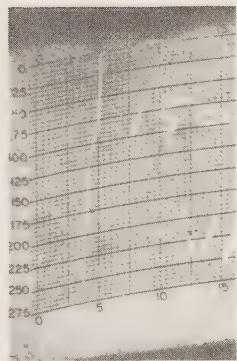




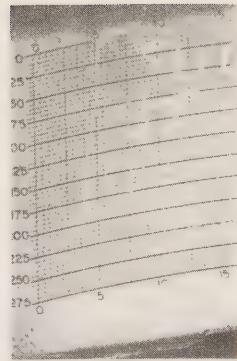




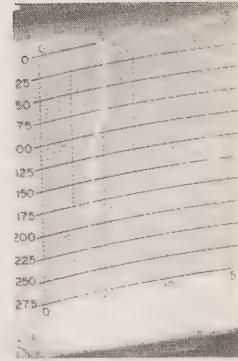
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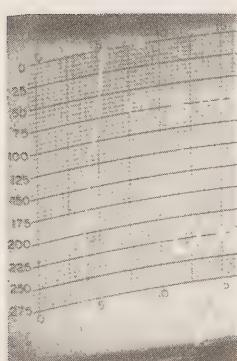
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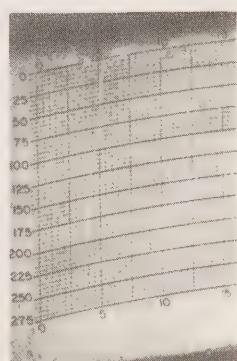
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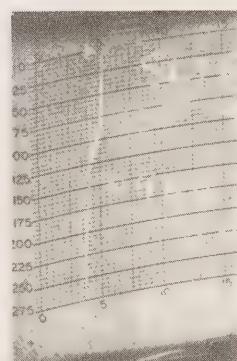
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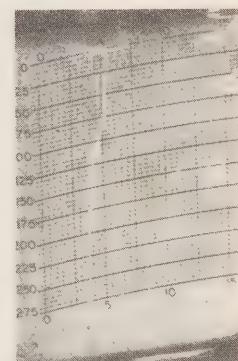
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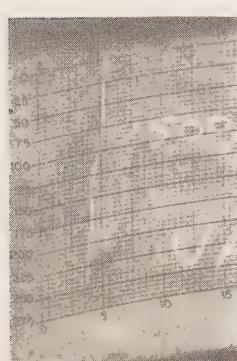
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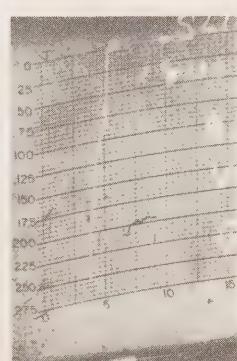
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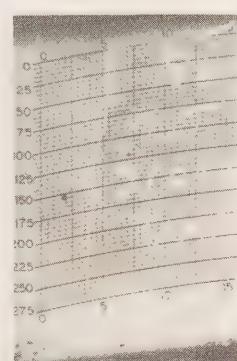
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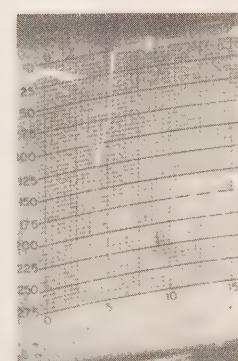
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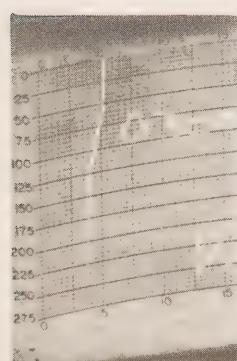
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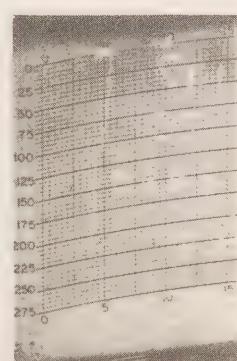
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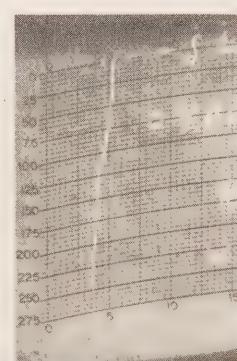
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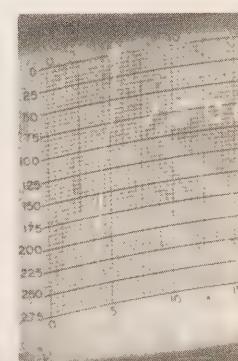
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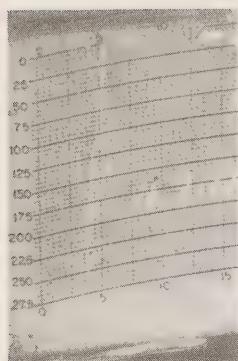


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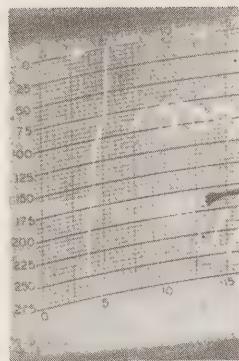


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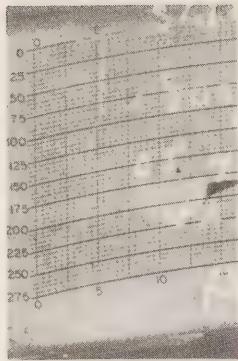




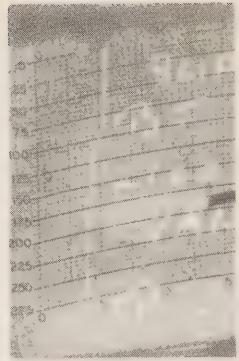
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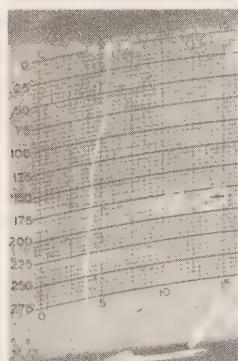
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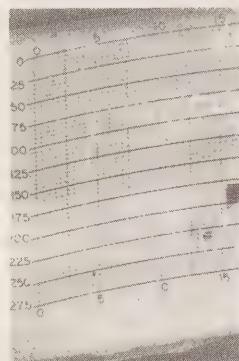
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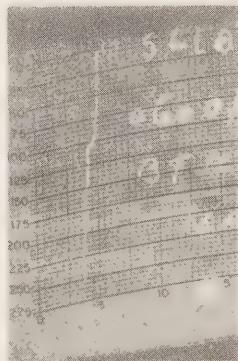
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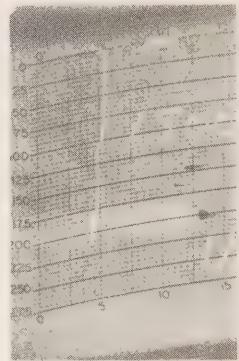
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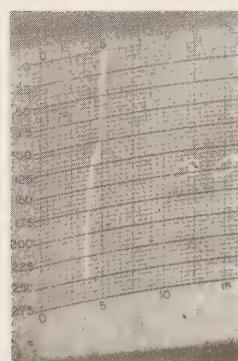
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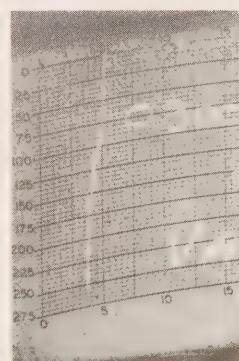
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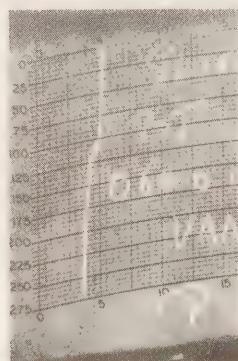
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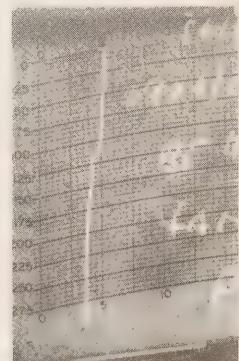
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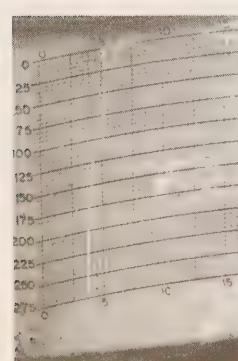
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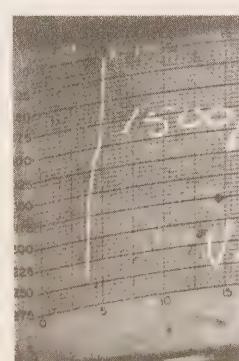
218



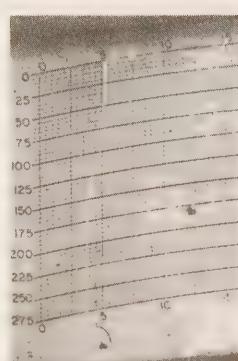
219



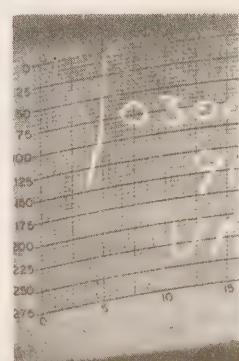
220



221



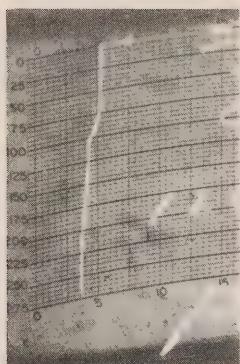
222



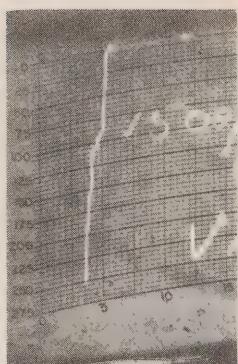
223



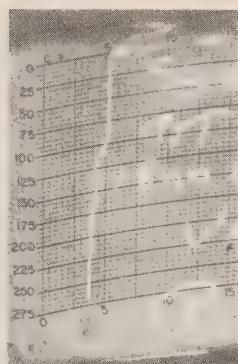




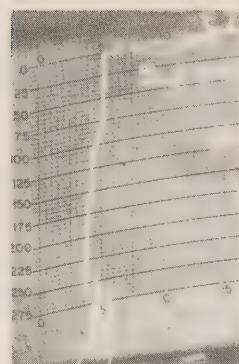
256



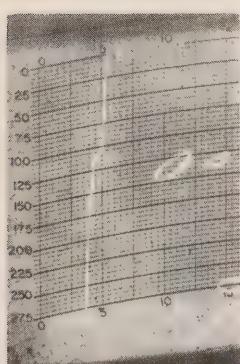
257



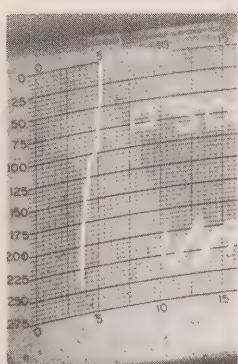
258



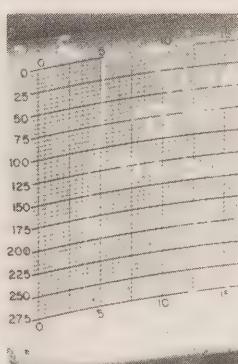
259



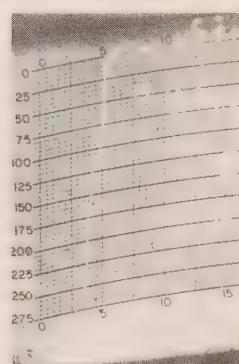
260



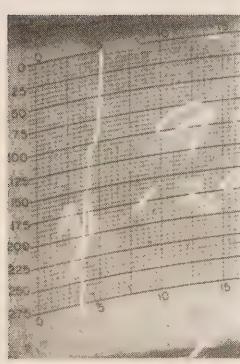
261



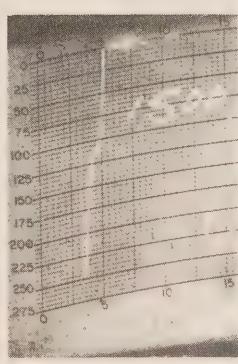
262



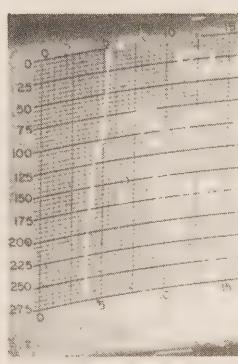
263



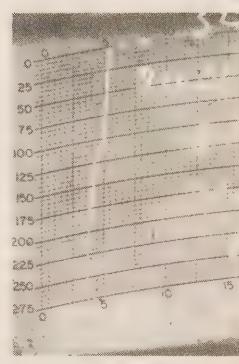
264



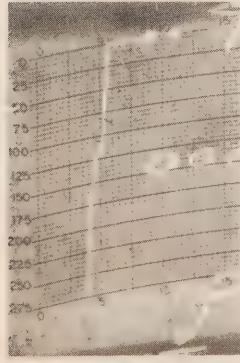
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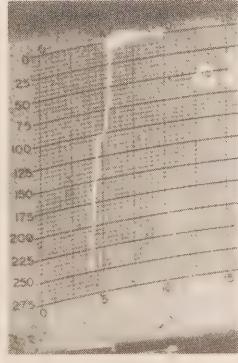
266



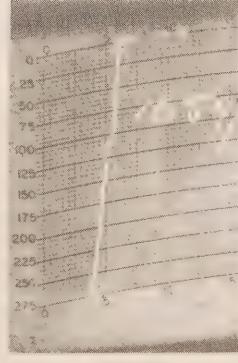
267



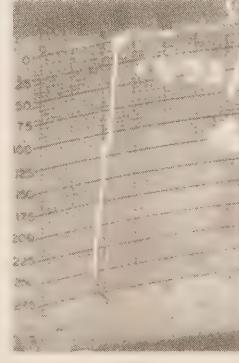
268



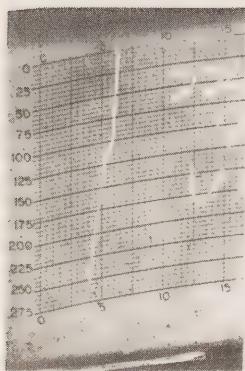
269



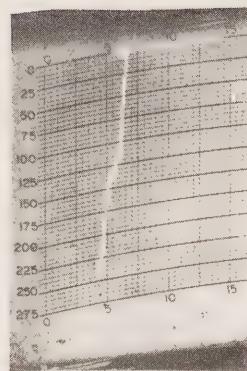
270



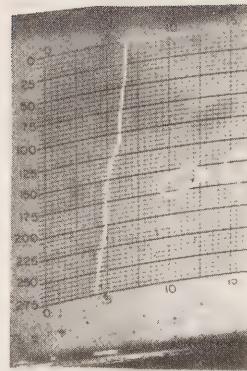
271



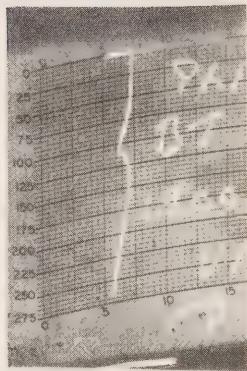
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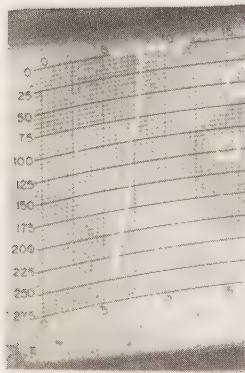
273



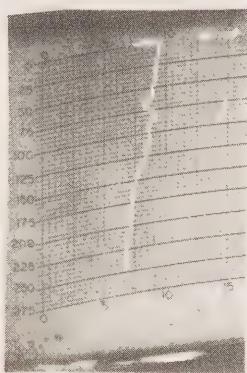
274



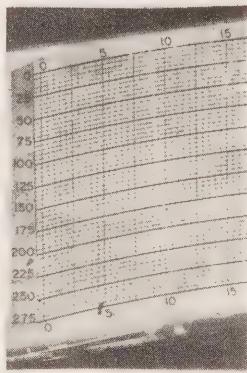
275



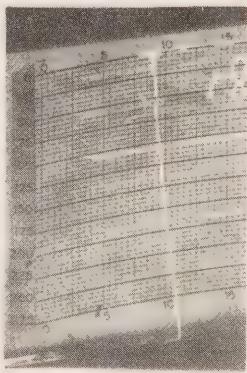
276



277



278



279

CCGS "QUADRA" 02-68-004

BATHYTHERMOGRAMS.



TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min	Metres				P	H	P	H	T	A
001	49	58	143	08	08	04	68	21	00	4221	02	97	39	4	4	5	6		
002	49	58	143	43	09	04	68	00	00	4221	02	97	30	4	4	5	6		
003	49	56	144	11	09	04	68	03	00	4221	19	01	25	07	05	3	3		
004	50	00	144	47	09	04	68	06	00	4221	16	01	19			4	4		
005	50	00	144	58	09	04	68	09	00	4221	19	02	17			1	1		
006	49	55	144	57	09	04	68	12	00	4221	21	01	16			4	4		
007	49	50	144	50	09	04	68	15	00	4221	23	02	14	05	04	6	6		
008	49	55	144	59	09	04	68	18	00	4221	25	02	16	05	04	5	5		
009	49	42	144	53	09	04	68	21	00	4221	27	16	10	06	04	6	6		
010	49	48	144	51	10	04	68	00	00	4221	30	15	17	06	04	6	6		
011	49	49	144	52	10	04	68	03	00	4221	31	01	16	06	04	4	4		
012	49	50	144	48	10	04	68	06	00	4221	32	87	20			2	6		
013	50	04	144	45	10	04	68	09	00	4221	33	01	18			1	3		
014	50	02	144	52	10	04	68	12	00	4221	32	01	24			4	3		
015	50	03	144	58	10	04	68	15	00	4221	33	25	22	08	06	6	9		
016	50	04	144	53	10	04	68	18	00	4221	34	15	26	09	05	5	2		
017	50	00	144	45	10	04	68	21	00	4221	36	01	26	09	05	4	4		
018	50	04	144	49	11	04	68	00	00	4221	37	01	20	07	05	2	2		
019	49	56	145	01	11	04	68	03	00	4221	37	03	19	08	05	1	1		
020	50	00	144	58	11	04	68	06	00	4221	38	01	17			3	3		
021	50	05	144	52	11	04	68	09	00	4221	37	03	20			2	2		
022	49	59	144	52	11	04	68	12	00	4221	37	02	20			6	6		
023	50	06	144	48	11	04	68	15	00	4221	36	02	19	07	05	6	6		
024	50	03	144	50	12	04	68	00	00	4221	36	02	24	07	05	4			
025	50	05	144	45	12	04	68	03	00	4221	33	02	22	08	08	2	5		

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
026	50	10	144	42	12	04	68	06	00	4221	33	02	24	08	08	2	5		
027	49	06	145	06	12	04	68	09	00	4221	32	02	26	07	06	8	8		
028	49	56	145	05	12	04	68	12	00	4221	31	02	28	07	06	8	8		
029	50	05	145	02	12	04	68	15	00	4221	29	02	28	08	08	8	8		
030	50	09	144	59	12	04	68	18	00	4221	27	02	28	08	08	8	8		
031	50	12	144	04	12	04	68	21	00	4221	25	02	28	08	08	8	8		
032	50	13	145	02	13	04	68	00	00	4221	22	21	32	08	08	8	8		
033	50	03	145	32	13	04	68	06	00	4221	20	21	31	08	08	8	8		
034	50	02	145	03	13	04	68	09	00	4221	20	21	27			8	8		
035	50	03	145	00	13	04	68	12	00	4221	20	21	22			8	8		
036	50	07	145	15	13	04	68	15	00	4221	20	21	24			8	8		
037	50	01	145	12	13	04	68	18	00	4221	19	21	16	08	09	8	8		
038	50	02	145	06	13	04	68	21	00	4221	17	15	07	08	08	8	6		
039	50	00	145	00	14	04	68	00	00	4221	11	15	18	07	06	8	6		
040	49	54	145	10	14	04	68	03	00	4221	08	15	33	07	06	8	6		
041	50	03	144	55	15	04	68	15	00	4221	25	02	15	08	10	8	8		
042	50	03	144	55	15	04	68	18	00	4221	25	02	14	07	07	8	8		
043	50	03	144	51	15	04	68	21	00	4221	26	02	14	07	04	8	8		
044	50	06	144	47	16	04	68	00	00	4221	27	02	11	07	03	8	8		
045	50	06	144	40	16	04	68	03	00	4221	26	02	14	07	07	3	8		
046	50	06	144	48	16	04	68	06	00	4221	26	61	16	05	03	3	8		
047	50	01	144	58	16	04	68	09	00	4221	23	21	19	05	03	3	8		
048	50	08	145	06	16	04	68	12	00	4221	21	45	22	05	03	3	8		
049	50	03	145	02	16	04	68	15	00	4221	20	45	19	05	02	3	8		
050	50	07	144	58	16	04	68	18	00	4221	19	10	19	03	02	3	8		

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
051	49	59	144	59	16	04	68	21	00	4221	17	10	25	03	02	3	8		
052	50	04	145	03	17	04	68	00	00	4221	33	02	24	03	02	2	5		
053	49	58	144	24	19	04	68	00	00	4221	35	02	22	66	66	6	5		
054	49	55	144	50	19	04	68	03	00	4221	35	02	18	75	08	5	6		
055	50	06	145	07	19	04	68	06	00	4221	36	02	12	75	07	5	8		
056	50	03	144	57	19	04	68	09	00	4221	36	02	08			5	2		
057	50	05	144	55	19	04	68	12	00	4221	35	02	05			5	2		
058	50	03	144	53	10	04	68	15	00	4221	34	02	05	75	85	5	3		
059	50	08	144	45	19	04	68	21	00	4221	33	02	08	75	86	5	7		
060	50	02	144	40	20	04	68	00	00	4221	32	02	17	74	08	5	8		
061	50	10	144	42	20	04	68	03	00	4221	25	02	26	XX	XX	3	8		
062	50	00	144	42	20	04	68	18	00	4221	12	28	15	XX	XX	3	8		
063	49	47	145	02	20	04	68	21	00	4221	11	10	10	XX	XX	3	8		
064	49	55	145	07	21	04	68	00	00	4221	07	45	03	75		9	9		
065	50	01	145	08	21	04	68	03	00	4221	04	61	04	64		9	9		
066	50	03	145	07	21	04	68	06	00	4221	01	21	06			8	0		
067	50	02	145	10	21	04	68	09	00	4221	98	45	06			9	9		
068	49	58	145	10	21	04	68	12	00	4221	99	45	18			9	9		
069	50	01	145	04	21	04	68	15	00	4221	01	02	22	76		1	5		
070	50	08	144	58	21	04	68	18	00	4221	03	02	19	76		1	5		
071	50	10	144	51	21	04	68	21	00	4221	03	10	20	65		2	2		
072	50	14	144	45	22	04	68	00	00	4221	03	02	17	64		1	0		
073	50	05	144	57	22	04	68	03	00	4221	00	61	18	64		8	8		
074	50	01	145	05	22	04	68	06	00	4221	98	61	16	64		5	8		
075	50	04	145	02	22	04	68	09	00	4221	96	02	19	64		5	8		

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
076	50	06	145	10	22	04	68	12	00	4221	97	21	15	75			5	8	
077	50	08	145	08	22	04	68	15	00	4221	98	02	20	76			5	7	
078	50	05	145	06	22	04	68	18	00	4221	99	80	21	76			2	8	
079	50	03	145	08	22	04	68	21	00	4221	01	02	22	56			3	8	
080	50	08	145	10	23	04	68	00	00	4221	03	16	28	56			2	7	
081	50	02	145	51	23	04	68	06	00	4221	04	02	26	56			2	6	
082	50	05	145	00	23	04	68	12	00	4221	07	02	18	56			4	1	
083	50	03	145	09	23	04	68	15	00	4221	08	03	14	56			2	6	
084	49	45	145	22	23	04	68	18	00	4221	09	03	25	56			2	2	
085	49	56	145	05	24	04	68	06	00	4221	05	61	22	87			7	8	
086	49	50	145	13	24	04	68	09	00	4221	06	10	24	56			7	8	
087	49	51	145	10	24	04	68	15	00	4221	08	02	26	56			7	8	
088	49	49	145	17	24	04	68	18	00	4221	09	02	21				6	8	
089	49	48	145	27	24	04	68	21	00	4221	10	02	26	87			5	4	
090	49	46	145	41	25	04	68	00	00	4221	12	02	27	67			5	7	
091	50	03	145	15	25	04	68	03	00	4221	14	02	24	67			6	5	
092	49	58	145	07	25	04	68	06	00	4221	16	02	21	67			6	7	
093	50	00	145	46	25	04	68	12	00	4221	16	10	19	67			6	8	
094	49	56	145	15	25	04	68	15	00	4221	16	51	18	56			6	8	
095	49	51	145	03	25	04	68	18	00	4221	16	45	06	56			6	8	
096	49	56	145	02	25	04	68	21	00	4221	15	02	11	43			6	9	
097	50	00	145	00	26	04	68	00	00	4221	15	02	15	43			6	8	
098	50	03	144	58	26	04	68	03	00	4221	16	02	16	54			9	1	
099	50	00	145	00	26	04	68	06	00	4221	16	02	13	54			9	1	
100	50	03	144	57	26	04	68	09	00	4221	16	02	17	43			9	1	

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
101	50	12	144	58	26	04	68	12	00	4221	17	10	14	43			4	6	
102	50	12	145	02	26	04	68	15	00	4221	17	51	18	32			5	8	
103	50	11	144	56	26	04	68	18	00	4221	18	45	18	32			5	8	
104	50	00	144	58	26	04	68	21	00	4221	19	02	14	22			5	1	
105	50	02	144	56	27	04	68	00	00	4221	19	02	14	12			6	2	
106	50	05	144	53	27	04	68	03	00	4221	19	03	09	12			0	1	
107	50	07	144	51	27	04	68	06	00	4221	19	02	06	02			6	2	
108	50	08	144	51	27	04	68	09	00	4221	19	02	07	01			6	3	
109	50	10	144	47	27	04	68	12	00	4221	18	02	04	01			6	5	
110	50	15	144	49	27	04	68	15	00	4221	17	02	06	01			6	1	
111	50	10	144	45	27	04	68	18	00	4221	17	02	05	01			8	1	
112	50	12	144	43	27	04	68	21	00	4221	16	02	05	01			8	1	
113	50	13	144	42	28	04	68	00	00	4221	14	02	03	01			6	1	
114	50	15	144	42	28	04	68	03	00	4221	12	02	00	01			6	1	
115	50	18	144	40	28	04	68	06	00	4221	11	02	03	01			6	1	
116	50	09	144	50	28	04	68	09	00	4221	08	02	03	01			6	1	
117	50	02	145	00	28	04	68	12	00	4221	06	02	04	01			8	1	
118	49	57	144	57	28	04	68	15	00	4221	06	02	09	01			6	1	
119	49	57	144	57	28	04	68	18	00	4221	07	02	13	01			6	1	
120	50	01	144	58	28	04	68	21	00	4221	07	02	08	01			6	1	
121	59	55	144	56	29	04	68	00	00	4221	08	02	08	01			6	1	
122	49	53	144	57	29	04	68	03	00	4221	09	02	08	01			6	1	
123	49	58	145	06	29	04	68	09	00	4221	11	02	09	01			6	1	
124	50	00	145	00	29	04	68	12	00	4221	12	02	06	01			6	1	
125	50	02	144	57	29	04	68	15	00	4221	14	16	07	01			6	1	

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
126	49	59	144	59	29	04	68	18	00	4221	14	02	06	01			6	1	
127	49	59	144	55	29	04	68	21	00	4221	15	02	14	01			6	1	
128	49	57	144	53	30	04	68	00	00	4221	15	02	14	01			6	1	
129	50	00	144	48	30	04	68	03	00	4221	11	02	19	02			6	6	
130	50	00	144	50	30	04	68	06	00	4221	08	51	23	02			6	7	
131	50	06	145	03	30	04	68	15	00	4221	03	61	22	02			6	6	
132	50	07	145	09	30	04	68	18	00	4221	00	02	22	13			5	2	
133	50	03	145	28	30	04	68	21	00	4221	00	15	26	23			5	2	
134	50	00	145	38	01	05	68	00	00	4221	01	16	28	23			5	6	
135	49	56	145	28	01	05	68	12	00	4221	04	16	30	33			5	6	
136	49	57	145	05	01	05	68	15	00	4221	08	01	31	33			5	8	
137	50	03	145	03	01	05	68	18	00	4221	10	02	28	23			5	6	
138	50	10	144	57	01	05	68	21	00	4221	12	02	21	23			5	6	
139	50	10	144	53	02	05	68	00	00	4221	12	02	15	23			5	3	
140	50	02	145	08	02	05	68	03	00	4221	18	02	15	22			8	3	
141	50	05	145	06	02	05	68	06	00	4221	19	02	09	22			8	3	
142	50	05	145	06	02	05	68	09	00	4221	21	01	06	22			8	7	
143	50	10	144	56	02	05	68	12	00	4221	21	02	13	12			6	8	
144	50	06	144	53	02	05	68	15	00	4221	23	02	12	12			6	4	
145	50	06	144	49	02	05	68	18	00	4221	25	01	06	12			6	1	
146	50	05	144	46	02	05	68	21	00	4221	27	01	08	12		X	0		
147	50	05	144	43	03	05	68	00	00	4221	28	02	06	12			6	2	
148	50	06	144	40	03	05	68	03	00	4221	29	02	09	12			6	1	
149	50	08	144	44	03	05	68	06	00	4221	30	02	10	12			5	3	
150	50	00	145	00	03	05	68	09	00	4221	31	01	12	12			6	2	

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
151	50	04	144	56	03	05	68	12	00	4221	32	03	10	12			6	2	
152	50	05	145	03	03	05	68	15	00	4221	32	01	09	12			6	1	
153	50	06	144	51	03	05	68	18	00	4221	34	03	08	12			6	3	
154	50	06	144	44	03	05	68	21	00	4221	35	03	08	12			6	3	
155	49	57	145	01	04	05	68	00	00	4221	35	02	08	12			8	8	
156	49	57	144	57	04	05	68	03	00	4221	35	02	09	12			6	8	
157	50	05	144	55	04	05	68	06	00	4221	35	02	07	12			5	8	
158	50	05	144	51	04	05	68	09	00	4221	35	02	09	12			6	8	
159	50	02	144	58	04	05	68	12	00	4221	34	02	11	06	02	5	8		
160	50	03	144	56	04	05	68	15	00	4221	34	02	11	12	12	6	8		
161	50	00	144	55	04	05	68	18	00	4221	33	02	12	12	12	6	8		
162	50	03	144	52	04	05	68	21	00	4221	33	01	14	12	12	6	8		
163	50	10	144	50	05	05	68	00	00	4221	31	01	13	12	12	6	6		
164	50	15	144	50	05	05	68	03	00	4221	30	02	13	23	12	6	8		
165	50	06	144	51	05	05	68	06	00	4221	29	02	16	23	12	5	8		
166	50	03	144	56	05	05	68	09	00	4221	28	61	19	23	12	6	8		
167	50	05	144	52	05	05	68	12	00	4206	25	61	19	22	12	6	8		
168	50	15	144	55	05	05	68	15	00	4221	22	02	19	22	12	6	8		
169	50	08	144	55	05	05	68	18	00	4221	21	10	19	22	12	6	1		
170	50	01	144	57	05	05	68	21	00	4221	21	01	14	22	12	6	1		
171	50	07	144	56	06	05	68	00	00	4221	20	02	12	12	22	7	1		
172	50	00	144	59	06	05	68	03	00	4221	19	02	08	12	23	6	7		
173	50	10	144	57	06	05	68	06	00	4221	18	03	16	12	22	6	8		
174	50	00	145	04	06	05	58	09	00	4221	17	02	14	12	23	6	5		
175	49	58	145	07	06	05	58	12	00	4221	15	02	14	22	33	6	8		

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
176	50	05	145	05	06	05	68	15	00	4221	13	02	17	32	33	33	6	8	
177	50	02	145	06	06	05	68	18	00	4221	12	02	21	33	33	33	6	8	
178	50	05	145	05	06	05	68	21	00	4221	11	02	20	33	33	33	6	8	
179	50	14	145	02	07	05	68	00	00	4221	10	61	24	22	21	21	6	8	
180	50	12	145	05	07	05	68	03	00	4221	00	02	15	22	11	6	3		
181	50	06	145	00	07	05	68	06	00	4221	10	84	13	22	11	5	7		
182	50	02	144	58	07	05	68	09	00	4221	10	01	12	22	23	6	8		
183	49	55	145	05	07	05	68	12	00	4221	09	02	14	22	23	6	8		
184	50	04	145	01	07	05	68	15	00	4221	09	80	14	22	23	6	8		
185	49	59	144	56	07	05	68	18	00	4221	09	02	19	22	22	6	8		
186	50	02	144	52	07	05	68	21	00	4221	10	02	12	12		6	8		
187	50	00	144	54	08	05	68	00	00	4221	12	02	14	12		6	8		
188	50	08	144	56	08	05	68	03	00	4221	13	02	14	22		6	8		
189	50	00	145	00	08	05	68	06	00	4221	14	02	12	22		6	8		
190	50	03	145	02	08	05	68	09	00	4221	15	61	15	12		6	8		
191	50	05	145	00	08	05	68	12	00	4221	15	21	12	12		6	8		
192	50	01	145	01	08	05	68	15	00	4221	17	02	08	12		6	7		
193	50	00	145	04	08	05	68	18	00	4221	18	02	10	12		6	8		
194	50	03	145	04	08	05	68	21	00	4221	18	02	09	12		6	8		
195	50	09	145	05	09	05	68	00	00	4221	18	51	04	12		X	9		
196	50	12	145	03	09	05	68	03	00	4221	18	51	10	12		X	9		
197	50	07	145	02	09	05	68	06	00	4221	19	61	11	12		7	8		
198	50	01	145	04	09	05	68	09	00	4221	19	61	20	12		7	8		
199	50	06	145	08	09	05	68	12	00	4221	19	45	20	12		X	9		
200	49	57	140	50	09	05	68	15	00	4221	20	45	20	12		X	9		

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
201	49	58	145	02	09	05	68	18	00	4221	21	43	22	12			X	9	
202	50	01	145	08	09	05	68	21	00	4221	23	02	19	12			6	7	
203	50	00	145	12	10	05	68	00	00	4221	23	03	23	12			6	7	
204	49	58	144	57	10	05	68	03	00	4221	25	02	22	12			6	6	
205	50	00	145	02	10	05	68	06	00	4221	26	02	19	12			6	6	
206	50	03	145	09	10	05	68	09	00	4221	27	03	20	12			5	6	
207	50	02	145	06	10	05	68	12	00	4221	28	02	18	12			6	8	
208	49	50	145	10	10	05	68	15	00	4221	30	02	12	12			6	6	
209	50	01	145	05	10	05	68	18	00	4221	31	01	12	12			5	5	
210	50	02	145	10	10	05	68	21	00	4221	32	02	12	12			5	5	
211	50	05	145	11	11	05	68	00	00	4221	32	02	02	11			5	2	
212	50	13	145	04	11	05	68	03	00	4221	32	02	02	11			5	2	
213	50	00	145	10	11	05	68	06	00	4221	33	02	09	XX			8	2	
214	49	59	145	05	11	05	68	09	00	4221	33	02	02	XX			8	1	
215	49	57	145	05	11	05	68	12	00	4221	32	02	02	XX			8	1	
216	50	00	145	05	11	05	68	15	00	4221	31	02	02	XX			8	1	
217	50	00	145	01	11	05	68	18	00	4221	31	02	02	XX			8	1	
218	50	01	145	03	11	05	68	21	00	4221	30	02	02	XX			8	1	
219	50	03	145	05	12	05	68	00	00	4221	28	02	02	XX			1	1	
220	50	04	145	04	12	05	68	03	00	4221	27	02	02	XX			1	1	
221	50	04	145	05	12	05	68	06	00	4221	25	02	02	XX			1	1	
222	50	00	145	00	12	05	68	09	00	4221	25	02	03	XX			1	1	
223	50	00	145	00	12	05	68	12	00	4221	24	02	09	XX			1	1	
224	50	04	145	01	12	05	68	15	00	4221	23	02	08	XX			1	1	
225	49	58	145	00	12	05	68	18	00	4221	23	02	08	XX			1	1	

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
226	49	58	144	57	12	05	68	21	00	4221	22	02	09	XX		1	1		
227	50	00	144	55	13	05	68	00	00	4221	21	02	10	XX		0	0		
228	50	02	144	52	13	05	68	03	00	4221	20	02	08	XX		0	0		
229	50	00	144	58	13	05	68	06	00	4221	20	03	04	XX		7	7		
230	49	59	144	57	13	05	68	09	00	4221	18	02	07	XX		7	8		
231	50	00	144	54	13	05	68	12	00	4221	17	10	00	XX		7	8		
232	50	01	144	53	13	05	68	15	00	4221	17	45	00	XX		7	9		
233	49	59	144	55	13	05	68	18	00	4221	16	28	00	XX		7	8		
234	50	00	144	54	13	05	68	21	00	4221	16	02	02	XX		7	8		
235	49	58	144	54	14	05	68	00	00	4221	16	46	00	XX		7	8		
236	50	00	144	55	14	05	68	03	00	4221	15	02	04	XX		8	9		
237	50	05	145	00	14	05	68	06	00	4221	15	45	03	XX		8	9		
238	50	00	145	00	14	05	68	09	00	4221	15	45	00	XX		6	1		
239	50	01	144	55	14	05	68	12	00	4221	15	10	05	XX		6	1		
240	49	59	145	04	14	05	68	15	00	4221	16	02	04	XX		0	1		
241	50	00	144	57	14	05	68	18	00	4221	16	02	03	XX		0	0		
242	50	00	145	00	14	05	68	21	00	4221	17	02	07	XX		0	0		
243	49	58	144	57	15	05	68	00	00	4221	17	02	00	XX		0	0		
244	50	00	145	04	15	05	68	03	00	4221	17	02	00	XX		0	0		
245	50	01	144	53	15	05	68	06	00	4221	18	02	04	XX		5	1		
246	50	02	144	58	15	05	68	09	00	4221	18	02	03	XX		0	0		
247	49	59	144	56	15	05	68	12	00	4221	18	02	04	XX		0	0		
248	50	04	145	03	15	05	68	15	00	4221	19	46	06	XX		0	0		
249	50	04	145	04	15	05	68	18	00	4221	19	10	08	XX		6	7		
250	50	07	144	59	15	05	68	21	00	4221	20	02	13	XX		6	8		

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
251	49	57	144	59	16	05	68	00	00	4221	19	02	08	XX		0	0		
252	50	03	144	57	16	05	68	03	00	4221	19	02	06	XX		0	0		
253	50	04	144	54	16	05	68	06	00	4221	20	02	04	XX		6	1		
254	50	07	144	55	16	05	68	09	00	4221	19	45	08	XX		0	0		
255	50	03	144	59	16	05	68	12	00	4221	18	51	08	11		0	0		
256	49	57	145	09	16	05	68	15	00	4221	17	45	08	11		0	0		
257	49	59	145	01	16	05	68	18	00	4221	17	43	12	11		6	7		
258	50	02	144	58	16	05	68	21	00	4221	16	02	14	XX		6	8		
259	50	06	144	59	17	05	68	00	00	4221	15	02	13	12		8	8		
260	50	08	144	57	17	05	68	03	00	4221	13	02	16	22		8	7		
261	50	01	144	58	17	05	68	06	00	4221	12	02	14	22		8	8		
262	50	03	145	02	17	05	68	09	00	4206	11	02	19	22		8	8		
263	50	23	145	02	17	05	68	12	00	4221	09	20	18	12		8	8		
264	50	03	145	00	17	05	68	15	00	4221	06	49	19	12		8	9		
265	50	03	145	03	17	05	68	18	00	4221	04	61	22	12		8	8		
266	50	00	145	10	18	05	68	21	00	4221	03	51	19	12		8	8		
267	50	01	145	07	18	05	68	00	00	4221	02	45	14	23		9	9		
268	50	02	145	10	18	05	68	03	00	4221	02	02	16	22		6	8		
269	50	02	145	05	18	05	68	06	00	4221	04	02	15	12		6	8		
270	49	57	145	10	18	05	68	09	00	4221	03	51	18	12		6	8		
271	50	03	145	03	18	05	68	12	00	4221	02	51	23	22		6	8		
272	50	02	145	13	18	05	68	15	00	4221	02	51	23	23		6	8		
273	50	01	144	57	18	05	68	18	00	4221	02	45	23	34		6	8		
274	49	57	145	04	18	05	68	21	00	4221	03	51	28	23		6	8		
275	49	57	144	55	19	05	68	00	00	4221	04	10	25	23		8	8		

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
276	49	55	144	40	19	05	68	03	00	4221	03	10	20	22			8	8	
277	49	57	144	27	19	05	68	06	00	4221	03	10	20	22			8	8	
278	50	02	144	58	19	05	68	09	00	4221	02	10	23	22			8	8	
279	49	57	145	00	19	05	68	12	00	4221	01	02	24	22			7	8	
280	49	58	145	05	19	05	68	15	00	5135	09	61	22	22			7	8	
281	49	55	145	07	19	05	68	18	00	4221	99	61	23	12			7	8	
282	49	59	145	22	19	05	68	21	00	4221	95	10	20	12			7	8	
283	50	00	145	16	20	05	68	00	00	4221	98	02	25	12			7	8	
284	50	00	145	05	20	05	68	03	00	4221	98	02	19	22			6	8	
285	49	54	144	24	20	05	68	06	00	4221	97	61	15	12			6	8	
286	49	55	143	42	20	05	68	09	00	4221	97	61	17	11			5	8	
287	49	51	143	13	20	05	68	12	00	4221	95	10	12	12			5	8	
288	49	45	141	40	20	05	68	18	45	3970	96	47	00	03			X	9	
289	49	42	140	40	20	05	68	21	30	3881	97	01	03	22			4	6	
290	49	38	139	40	21	05	68	00	30	3851	99	01	03	33			4	1	
291	49	35	138	40	21	05	68	03	12	3890	01	02	16	22			4	2	
292	49	30	137	40	21	05	68	06	12	3850	01	02	03	43			6	6	
293	49	26	136	40	21	05	68	09	00	3775	01	02	03	33			6	6	
294	49	22	135	40	21	05	68	12	00	3200	01	01	03	23			8	3	
295	49	18	134	40	21	05	68	14	40	3550	02	01	08	22			8	2	
296	49	13	133	40	21	05	68	17	35	3200	02	02	09	23			6	5	
297	49	09	132	40	21	05	68	21	30	3275	02	03	03	23			6	7	
298	49	06	131	40	22	05	68	00	45	2875	02	25	16	22			6	3	
299	49	00	130	40	22	05	68	04	10	2930	02	03	12	33			6	8	
300	48	55	129	40	22	05	68	07	20	2601	03	02	18	33			6	8	

TABLE 2

CON No	LAT		LONG		DATE			GMT		DEPTH Metres	BAR Mbs	WW Code	WIND Amt	W-1		W-2		CLOUD	
	Deg	Min	Deg	Min	Day	Mon	Yr	Hrs	Min					P	H	P	H	T	A
301	48	51	128	40	22	05	68	10	50	2529	05	02	23	33			6	8	
302	48	48	127	40	22	05	68	14	00	2500	08	02	14	22			6	7	
303	48	42	126	40	22	05	68	17	15	1300	11	02	10	22			6	8	
304	48	38	126	00	22	05	68	19	15	0110	12	02	12	22			6	8	
305	48	33	125	32	22	05	68	21	00	0128	14	01	10	22			4	5	



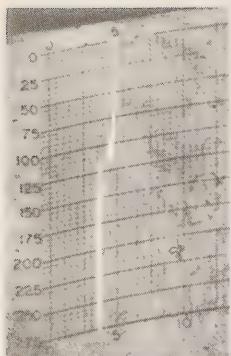




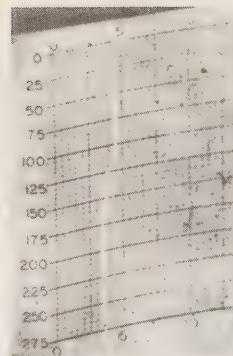




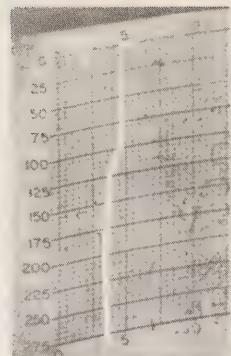




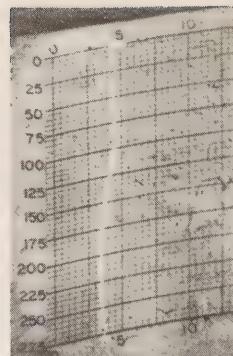
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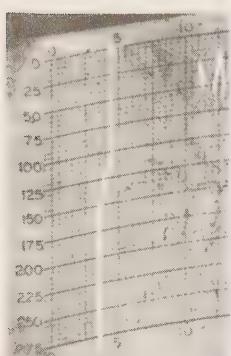
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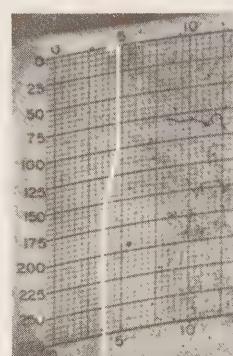
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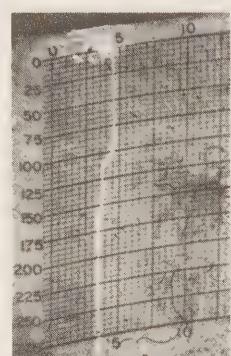
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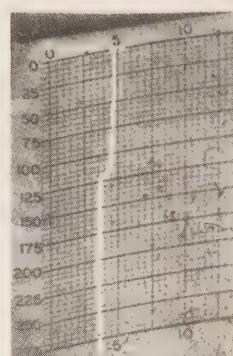
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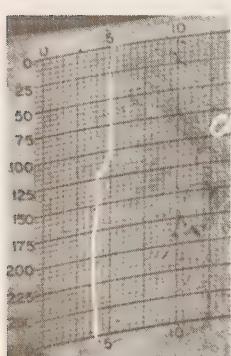
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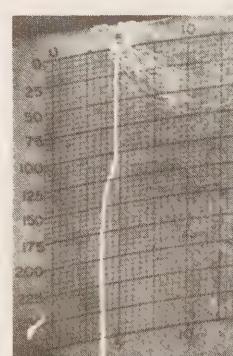
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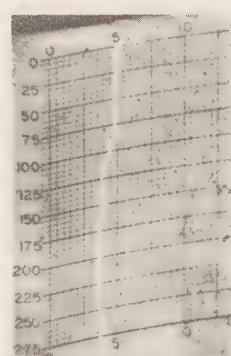
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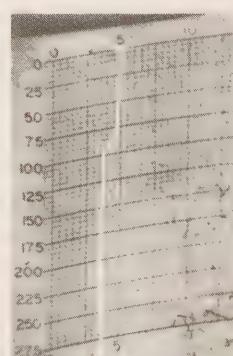
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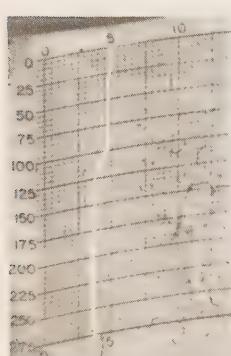
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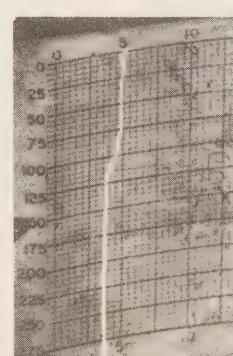
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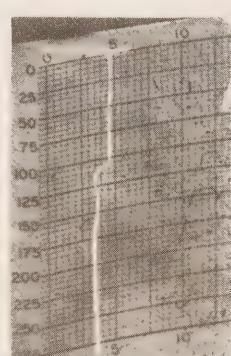
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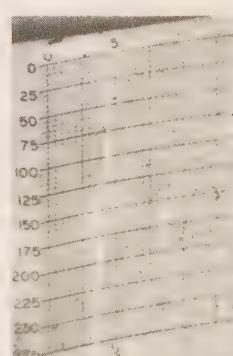
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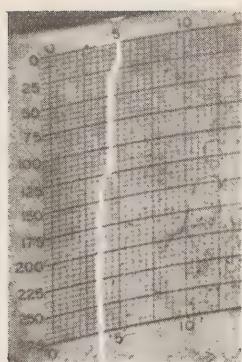


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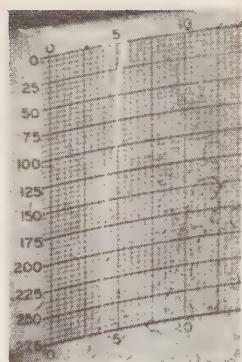


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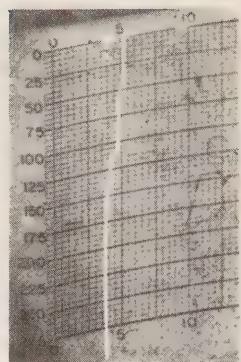




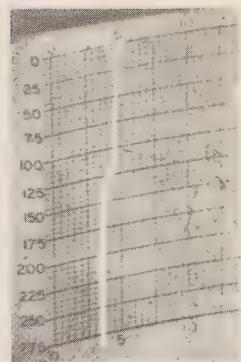
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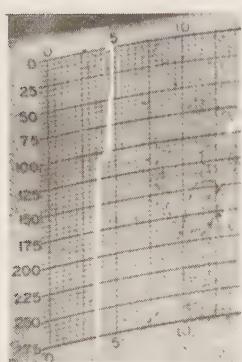
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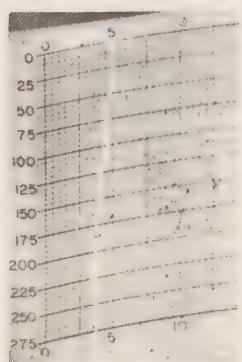
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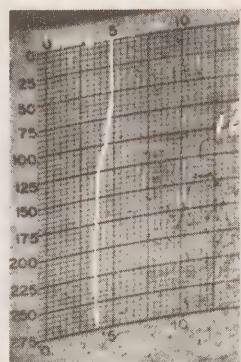
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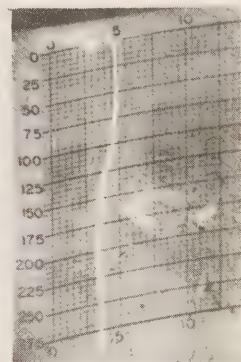
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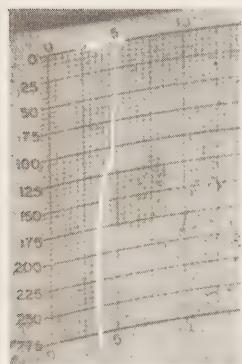
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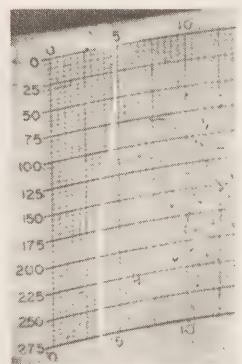
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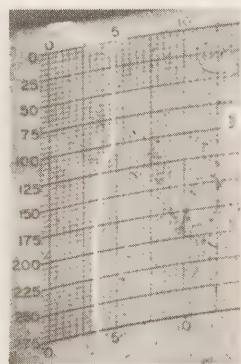
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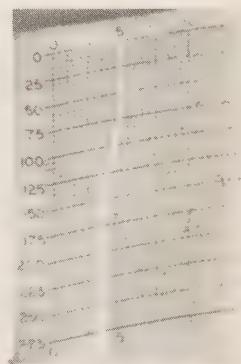
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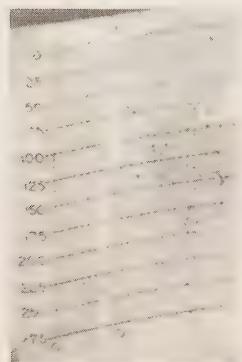
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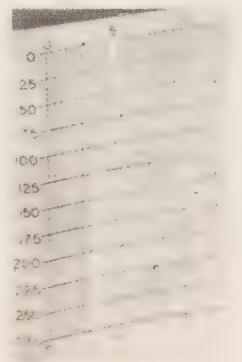
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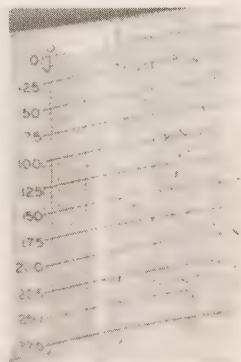
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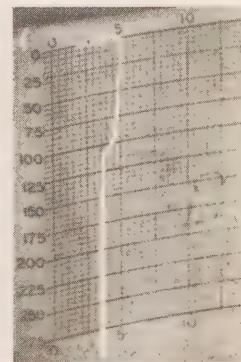
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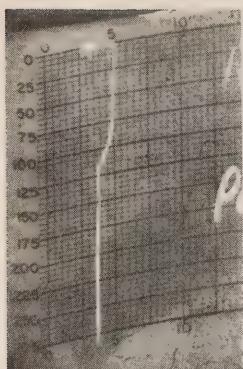
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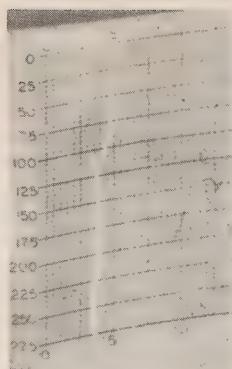
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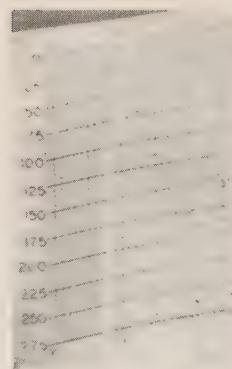
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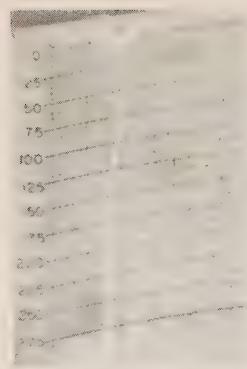
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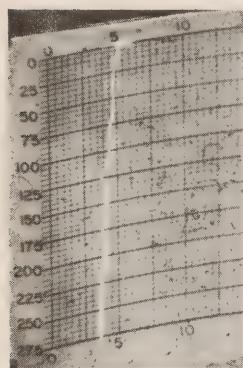
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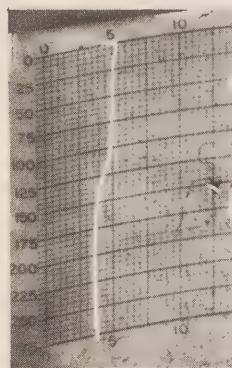
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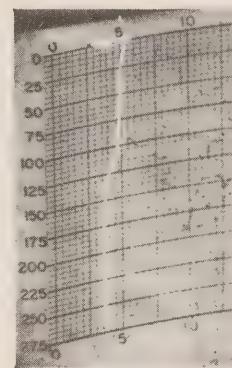
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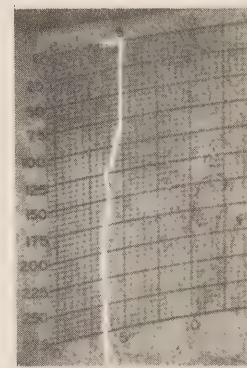
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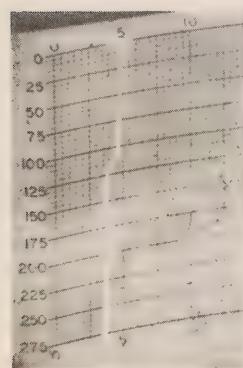
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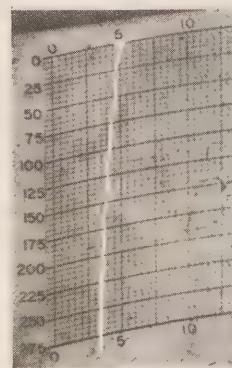
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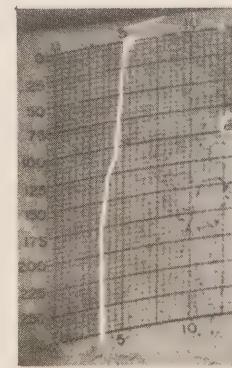
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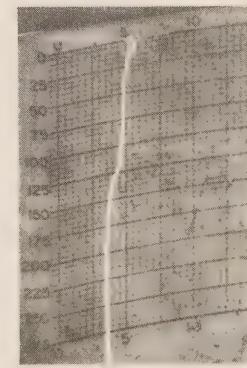
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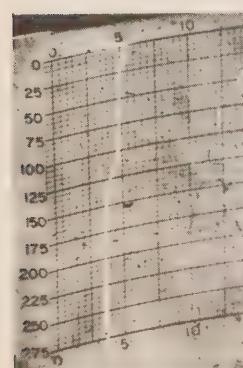
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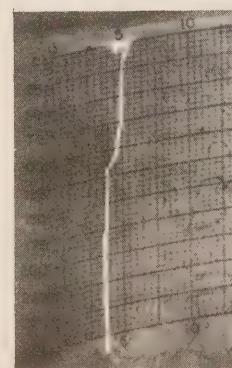
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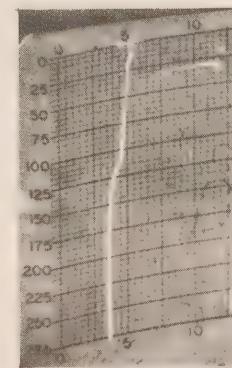
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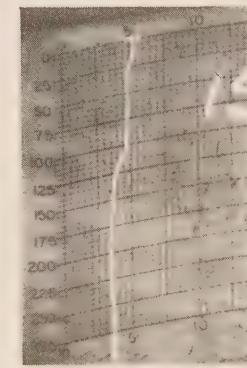
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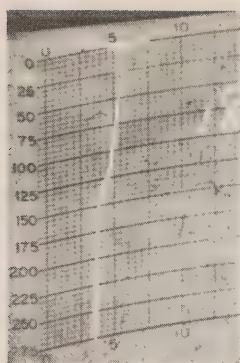


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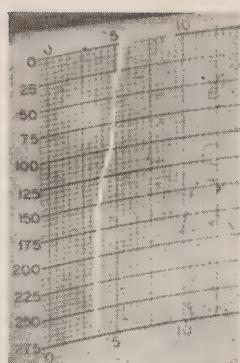


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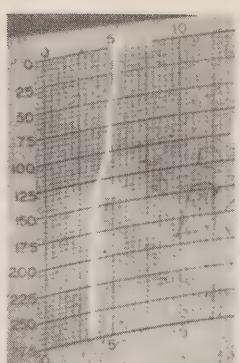




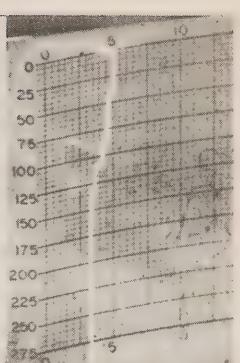
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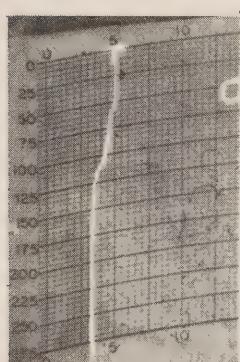
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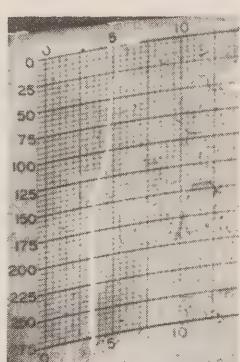
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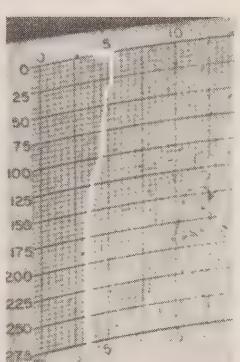
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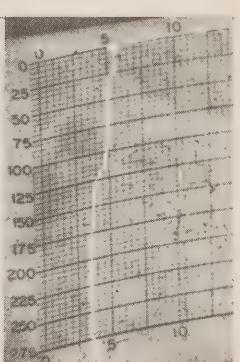
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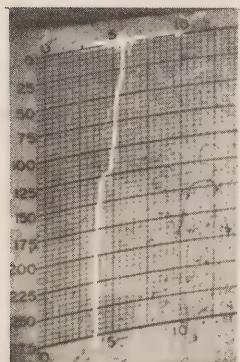
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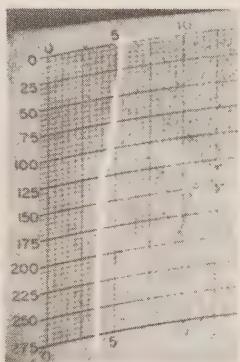
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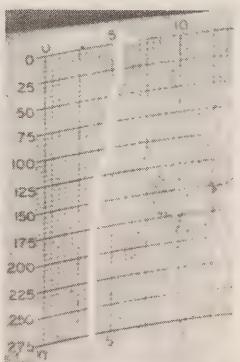
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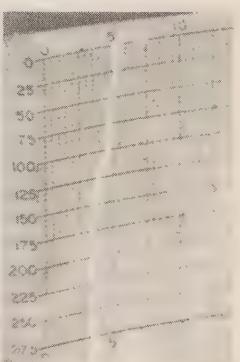
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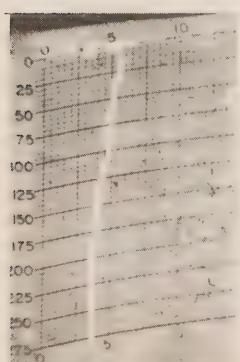
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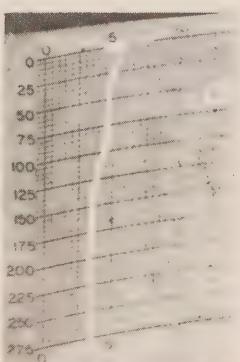
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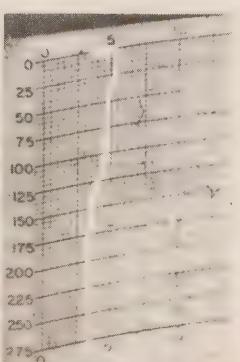
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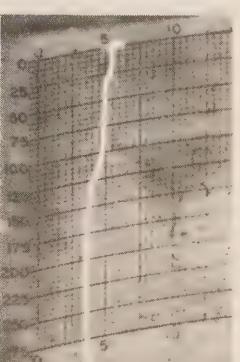
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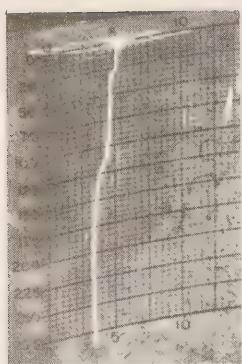
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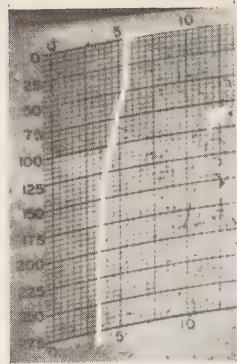
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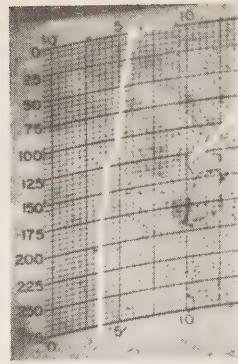
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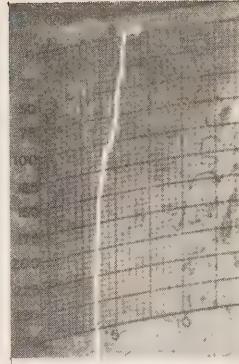
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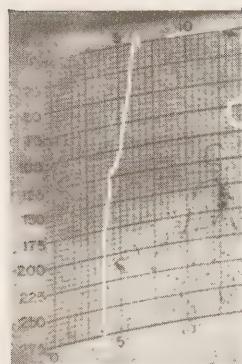
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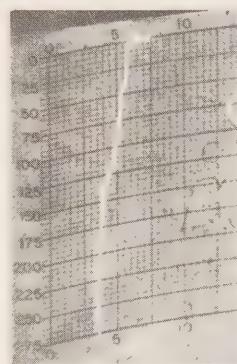
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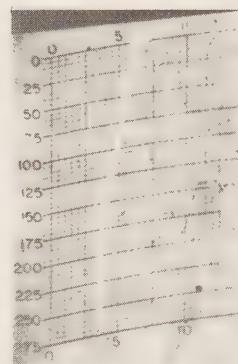
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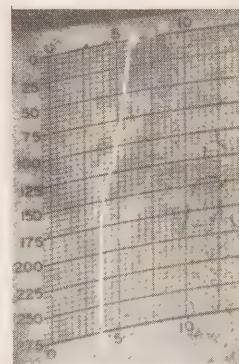
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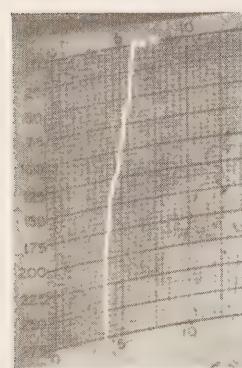
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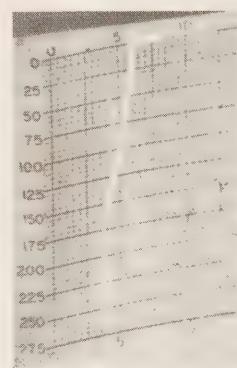
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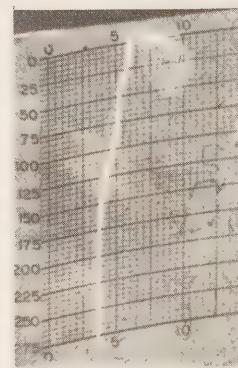
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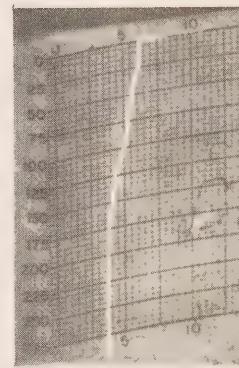
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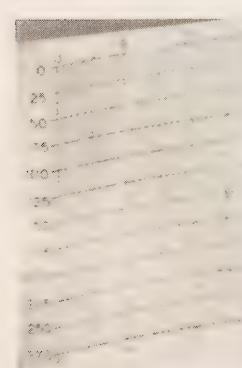
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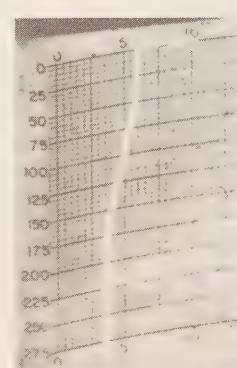
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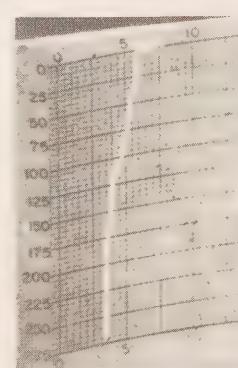
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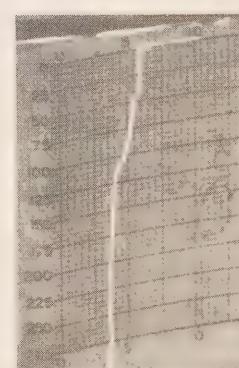
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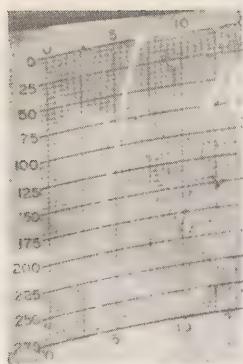


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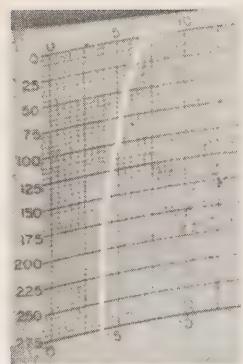


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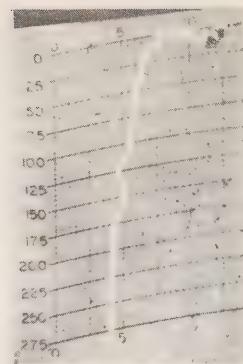




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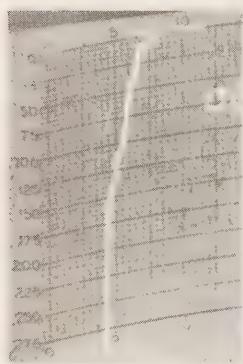
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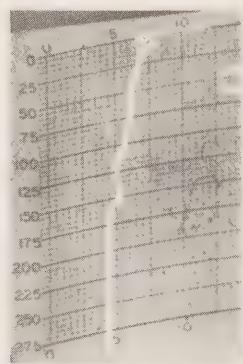
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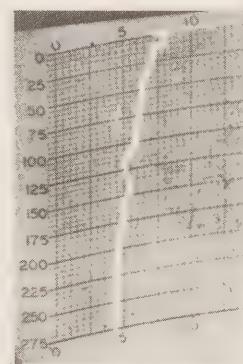
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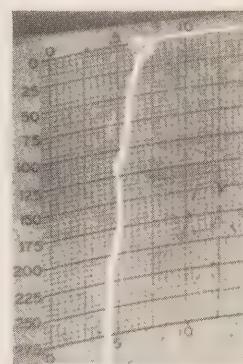
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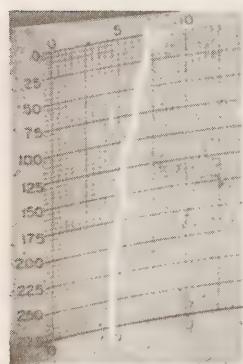
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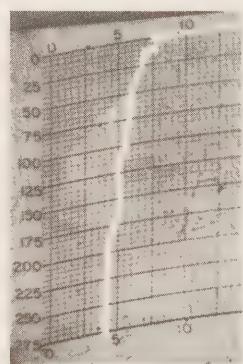
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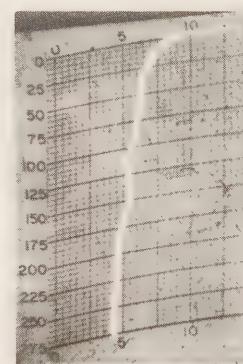
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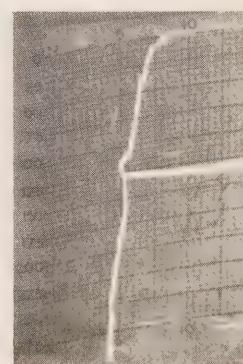
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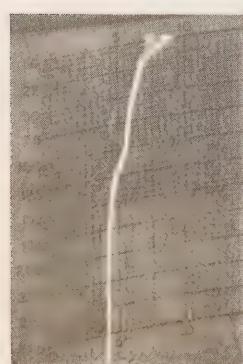
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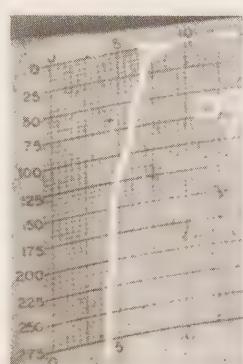
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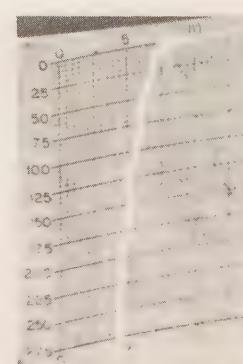
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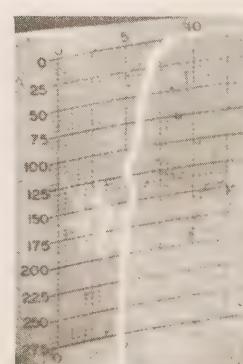
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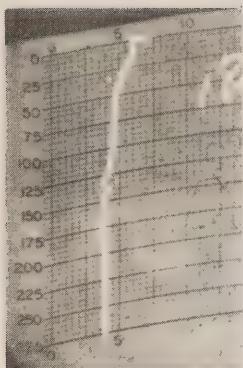
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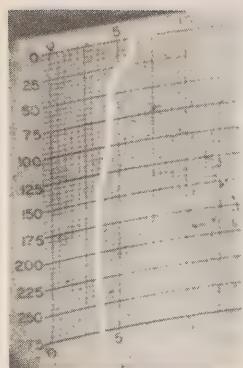
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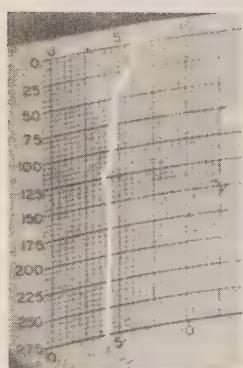




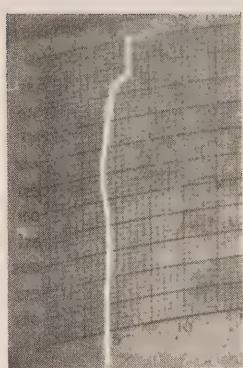
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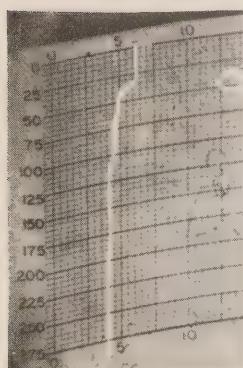
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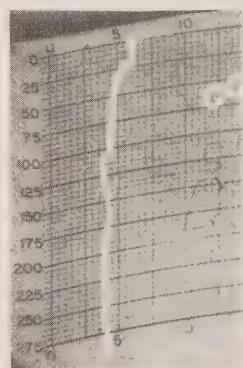
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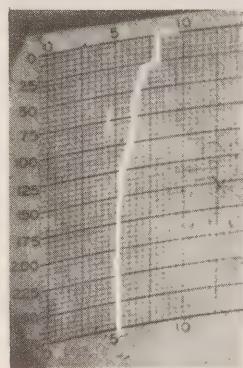
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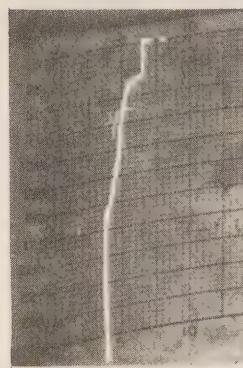
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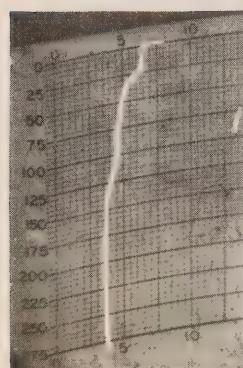
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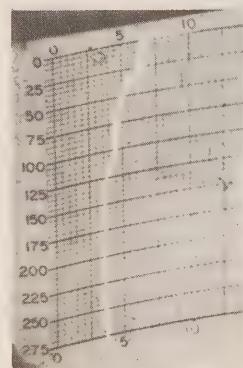
279



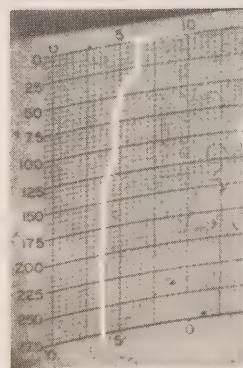
280



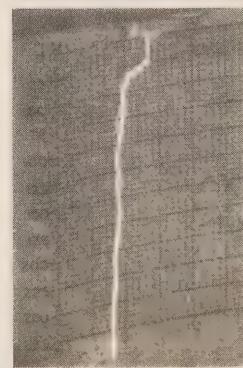
281



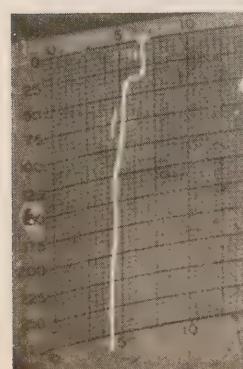
282



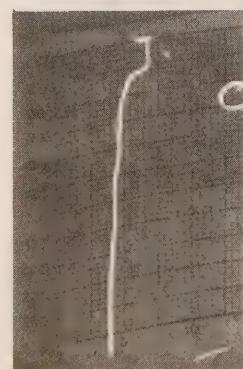
283



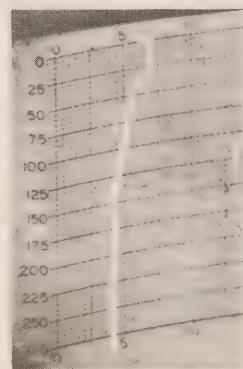
284



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286

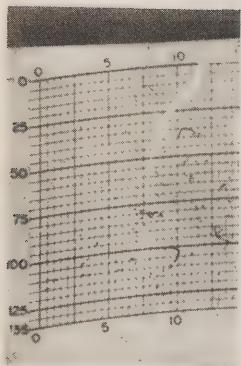


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## SECTION V

Surface Salinity Data



P-68-1

## Surface salinity observations

CCGS "VANCOUVER"

Date-Time GMT	Position		Salinity S %
	Latitude	Longitude	
68-02-24-02.5	48°33' N	125°32' W	32.286
02-24	48°38'	126°00'	31.529
02-24-06.3	48°42'	126°40'	32.388
02-24-08.0	48°47'	127°40'	32.377
02-24-12.0	48°51'	128°40'	32.471
02-24-14.7	48°55'	129°40'	32.396
02-24-20.8	49°05'	131°40'	32.532
02-25-00.0	49°10'	132°40'	32.527
02-25-04.0	49°15'	133°40'	32.54
02-25-05.5	48°18'	134°40'	32.523
02-25-08.5	49°23'	135°40'	32.583
02-25-11.0	49°26'	136°40'	32.557
02-25-14.2	49°30'	137°40'	32.559
02-25-17.2	49°34'	138°40'	32.579
02-25-20.0	49°38'	139°40'	32.591
02-25-23.5	49°42'	140°40'	32.589
02-26-02.5	49°40'	141°40'	32.602
02-26-05.5	49°49'	142°40'	32.590
02-26-09.0	49°54'	143°40'	32.611
02-27-00.0	49°46'	144°42'	32.593
02-28-00.0	49°52'	144°57'	32.586
02-29-00.0	50°01'	144°34'	32.577
02-30-00.0	50°00'	145°00'	32.567
03-02-00.0	49°54'	145°14'	32.576
03-03-00.0	49°50'	145°01'	32.578
03-04-00.0	50°00'	145°01'	32.582
03-05-00.0	50°03'	145°07'	32.582
03-06-00.0	50°02'	144°58'	32.561
03-07-00.0	50°08'	145°18'	32.583
03-08-00.0	49°59'	145°14'	32.563
03-09-00.0	50°04'	144°55'	32.584
03-10-00.0	50°03'	145°02'	32.602
03-12-00.0	50°01'	145°09'	32.558
03-13-00.0	49°57'	145°10'	32.567
03-14-00.0	49°55'	145°09'	32.567
03-15-00.0	50°01'	144°59'	32.573
03-16-00.0	50°02'	144°57'	32.686
03-17-00.0	49°57'	145°02'	32.573
03-18-00.0	49°59'	144°59'	32.579

Contd.....

P-68-1 (continued)

Date-Time GMT	Position Latitude	Position Longitude	Salinity S %.
68-03-19-00.0	50° 01' N	144° 55' W	32.535
03-20-00.0	50° 04'	145° 02'	32.537
03-21-00.0	50° 08'	145° 13'	32.546
03-22-00.0	50° 09'	144° 55'	32.560
03-23-00.0	49° 57'	144° 54'	32.566
03-24-00.0	50° 00'	145° 00'	32.578
03-25-00.0	50° 01'	145° 05'	32.569
03-27-00.0	50° 00'	145° 00'	32.583
03-28-00.0	50° 03'	145° 04'	32.634
03-29-00.0	49° 59'	145° 13'	32.596
03-30-00.0	50° 00'	144° 56'	32.610
04-01-00.0	50° 03'	144° 12'	32.602
04-02-00.0	49° 56'	144° 39'	32.574
04-03-00.0	50° 02'	144° 58'	32.614
04-04-00.0	49° 55'	145° 02'	32.572
04-05-00.0	50° 01'	145° 03'	32.641
04-06-00.0	49° 59'	145° 20'	32.580
04-07-00.0	50° 07'	144° 57'	32.561
04-08-14.9	49° 49'	142° 40'	32.550
04-08-20.0	49° 40'	141° 40'	32.540
04-08-22.4	49° 41'	140° 40'	32.563
04-09-03.6	49° 34'	138° 40'	32.559
04-09-06.6	49° 30'	137° 40'	32.548
04-09-08.8	49° 26'	136° 40'	32.552
04-09-13.0	49° 15'	135° 40'	32.568
04-09-14.6	49° 17'	134° 40'	32.519
04-09-17.3	49° 15'	133° 40'	32.542
04-09-18.8	49° 10'	132° 40'	32.537
04-10-01.0	49° 02'	130° 40'	32.476
04-10-05.0	48° 55'	129° 40'	32.436
04-10-07.0	48° 51'	128° 40'	32.460
04-10-09.6	48° 46'	127° 40'	32.421
04-10-12.6	48° 42'	126° 40'	31.853
04-10-15.8	48° 38'	126° 00'	31.535
04-10-17.6	48° 33'	125° 33'	30.898

## Quadra #3

## Surface salinity observations

CCGS "QUADRA"

Date-Time GMT	Position Latitude	Position Longitude	Salinity S %.
68-04-10-00.0	Ocean Station P		32.677
04-11-00.0	"		32.664
04-12-00.0	"		32.678
04-13-00.0	"		32.623
04-14-00.0	"		32.595
04-15-00.0	"		32.624
04-16-00.0	"		32.591
04-17-00.0	"		32.541
04-18-00.0	"		32.603
04-19-00.0	"		32.594
04-20-00.0	"		32.606
04-21-00.0	"		32.597
04-22-00.0	"		32.615
04-23-00.0	"		32.613
04-24-00.0	"		32.584
04-25-00.0	"		32.622
04-26-00.0	"		32.614
04-27-00.0	"		32.980
04-28-00.0	"		32.600
04-29-00.0	"		32.594
04-30-00.0	"		32.600
05-01-00.0	"		32.587
05-02-00.0	"		32.589
05-03-00.0	"		32.609
05-04-00.0	"		32.588
05-05-00.0	"		32.610
05-06-00.0	"		32.616
05-07-00.0	"		32.579
05-08-00.0	"		32.581
05-09-00.0	"		32.569
05-10-00.0	"		32.589
05-11-00.0	"		32.586
05-12-00.0	"		32.587
05-13-00.0	"		32.584
05-14-00.0	"		32.579
05-15-00.0	"		32.590
05-16-00.0	"		32.581
05-17-00.0	"		32.579
05-18-00.0	"		32.588
05-19-00.0	"		32.553
05-20-00.0	"		32.574

Continued .....

## Patrol #3 (continued)

Date-Time GMT	Position		Salinity S %.
	Latitude	Longitude	
68-05-20-18.7	49° 45' N	141° 40' W	32.518
05-20-21.5	49° 42'	140° 40'	32.556
05-21-00.5	49° 37'	139° 40'	32.593
05-21-03.2	49° 34'	138° 40'	32.545
05-21-06.2	49° 30'	137° 40'	32.540
05-21-09.0	49° 26'	136° 40'	32.519
05-21-14.7	49° 18'	134° 40'	32.548
05-21-17.6	49° 13'	133° 40'	32.533
05-21-21.5	49° 09'	132° 40'	32.456
05-22-00.7	49° 06'	131° 40'	32.474
05-22-04.2	49° 00'	130° 40'	31.960
05-22-07.3	48° 55'	129° 40'	32.332
05-22-10.8	48° 51'	128° 40'	32.307
05-22-14.0	48° 48'	127° 40'	31.938
05-22-17.2	48° 42'	126° 40'	31.818
05-22-19.2	48° 38'	126° 00'	31.761
05-22-21.0	48° 33'	125° 32'	32.074

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